



**Bid Number 50-00135605**

**TWO (2) YEAR CONTRACT FOR RESTORATION OF SIDEWALKS,  
DRIVEWAY APRONS AND OCCASIONALLY THE ADJACENT STREET  
PANEL, FOR THE JEFFERSON PARISH DEPARTMENT OF PUBLIC WORKS,  
STREETS AND ALL JEFFERSON PARISH AGENCIES AND MUNICIPALITIES  
EXCLUDING GRAND ISLE**

**BID DUE: SEPTEMBER 23, 2021 AT 2:00 PM**

**ATTENTION VENDORS!!!**

**Please review all pages and respond accordingly, complying with all provisions  
in the technical specifications and Jefferson Parish Instructions for Bidders and  
General Terms and Conditions. All bids must be received on the Purchasing  
Department's eProcurement site, [www.jeffparishbids.net](http://www.jeffparishbids.net), by the bid due date  
and time. Late bids will not be accepted.**

**Jefferson Parish Purchasing Department  
200 Derbigny Street  
General Government Building, Suite 4400  
Gretna, LA 70053  
Buyer Name: Daphne Nelson  
Buyer Email: [Dnelson@jeffparish.net](mailto:Dnelson@jeffparish.net)  
Buyer Phone: 504-364-2650**



# JEFFERSON PARISH

## DEPARTMENT OF PURCHASING

CYNTHIA LEE SHENG  
PARISH PRESIDENT

RENNY SIMNO  
DIRECTOR

September 2020

### **Changes to Jefferson Parish Bidding Information**

The Jefferson Parish Purchasing Department would like to make vendors aware of the following changes:

**Total Bid Price Must Include the Cost of Naming Jefferson Parish as Additional Insured:**

Bidder acknowledges that Bidder recovered the cost of any required insurance in the contract price as required by La.R.S. 9:2780.1 and that Bidder recovered any such cost for the purposes of insuring an obligation to indemnify Jefferson Parish, defend Jefferson Parish, or hold Jefferson Parish harmless and that Bidder's indemnity liability is limited to the amount of the proceeds that are payable under the insurance policy or policies that Bidder has obtained.

**Electronic Procurement:** Beginning November 1, 2020, Jefferson Parish will no longer accept manual bid submissions; and will only accept bid submissions electronically via our e-Procurement system, Central Bidding. Central Bidding can be accessed by visiting either [www.centralbidding.com](http://www.centralbidding.com) or [www.jeffparishbids.net](http://www.jeffparishbids.net). All bidders will be required to register with Central Bidding. Jefferson Parish vendors are able to register for free by accessing the following link:  
<https://www.centralauctionhouse.com/registration.php>.

**Probable Construction Cost:** Per Jefferson Parish Administrative Policy, the probable construction cost is not revealed in the Jefferson Parish Bidding Documents. Jefferson Parish Administrative Policy has changed and a range of the probable construction cost will be stated in the Jefferson Parish bidding document, entitled Important Notice to All Bidders – Bid Requirements. Per Louisiana Public Bid Law, the probable construction cost will be read at the bid opening.

**Insurance Requirement:** All bidders must provide proof of valid insurance in the required amounts as stated in the Standard Insurance Requirements for bidding purposes. Failure to provide the proof of valid insurance in all of the required coverage amounts will result in bid rejection.

GENERAL GOVERNMENT BLDG. – 200 DERBIGNY ST., SUITE 4400, GRETNA, LA 70053  
OFFICE 504.364.2678

JOSEPH S. YENNI BLDG. – 1221 ELMWOOD PARK BLVD., SUITE 404, JEFFERSON, LA 70123  
OFFICE 504.364.2678  
EMAIL: [PURCHASING@JEFFPARISH.NET](mailto:PURCHASING@JEFFPARISH.NET) WEBSITE: [WWW.JEFFPARISH.NET](http://WWW.JEFFPARISH.NET)

# Bid Bond

An Electronic Bid Bond must be submitted with this bid, through one of the respective clearing houses at [www.jeffparish.net](http://www.jeffparish.net) or [www.centralbidding.com](http://www.centralbidding.com). To access the bonding companies on Central Bidding, hover over the "Central Bidding" link at the top of the page and select the "Bid Bonds" link.

The electronic bid bond number is to be placed in the required section listed on the standard envelope. Scanned copies of bid bonds will not be accepted with your submission.

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### **IMPORTANT NOTICE TO ALL BIDDERS – BID REQUIREMENTS**

#### **A. LOUISIANA CONTRACTOR'S LICENSE FOR THIS PROJECT**

Must be in the following category:

Highway, Street, and Bridge Construction

#### **B. PROBABLE CONSTRUCTION RANGES**

Range of The Probable Construction Cost for Base Bid:

Range of The Probable Construction Cost for Alternate No. 1:

Range of The Probable Construction Cost for Alternate No. 2:

Range of The Probable Construction Cost for Alternate No. 3:

Range of The Previous Contract Cap  
(Public Work Maintenance Contract):

D - \$1,000,000 - \$2,500,000

#### **C. TIMELINES**

Except as where provided by law, Bidder agrees that this bid shall be legally binding and may not be withdrawn for a period of forty-five (45) calendar days after the scheduled closing time for receiving bids. In the event the Owner issues the Letter of Award (copy of adopted resolution awarding bid by Jefferson Parish Council) during this period, the bid accepted shall continue to remain binding pending execution of the Contract.

Bidder agrees to execute the ensuing Contract and will deliver applicable Bonds to secure the faithful performance thereof.

**PROTESTS:** Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-913 of the Jefferson Parish Code of Ordinances.)

Upon full execution of the Contract and receiving a written notice to proceed, the Bidder agrees that all work shall be completed as follows:

15 calendar days per work order

#### **D. SALES TAX EXEMPTION**

For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session – Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.



**E. LIQUIDATED DAMAGES**

In accordance with Resolutions 136352 and 136353, Bidder agrees to pay, as liquidated damages, the sum of \$250.00 for: (1) each consecutive calendar day after the agreed date of completion that the work remains substantially incomplete, or (2) each consecutive calendar day after substantial completion that the work has not been finally completed.

In addition to, but not in lieu of the per diem liquidated damages, Owner shall also be entitled to recover from Contractor or Contractor's Surety additional liquidated damages as detailed in Resolutions 113646 and 113647. These additional liquidated damages may include, but are not limited to the following, in the amounts and for each of the items identified in the Supplementary Conditions:

- (1) Extended architectural and/or engineering fees \$ N/A ;
- (2) Extended Resident Project Representative fees \$ N/A ;
- (3) Extended construction management fees \$ N/A ;
- (4) Extended Owner's overhead and personnel expenses \$ 250.00/ day ; and
- (5) Owner's other costs directly related to the delay in completion beyond the Contract Times.

Also, in accordance with Section 6.02, "Labor; Working Hours," whenever Contractor's work requires inspections in excess of the budgeted amount for inspection, Contractor shall reimburse Owner for the additional costs incurred by the Owner attributable to inspection of the contracted project in excess of the budgeted amount for inspections.

In accordance with the terms of the Engineer's agreement with the Owner, the average hourly rate to be charged for resident inspection for this construction project is \$ N/A and the reasonable budget for such inspections is \$ N/A (the overtime rates shall be \$ N/A per hour). The cost of inspection in excess of this budgeted amount shall be assessed against Contractor's progress payments, all in accordance with LSA R.S. 38:2216(L)(2).

**F. METHODS OF BID SUBMISSION**

Online at no charge via Jefferson Parish's electronic procurement page by visiting [www.jeffparishbids.net](http://www.jeffparishbids.net). Registration and use of this site is free to Jefferson Parish vendors.

**G. ETHICAL STANDARDS AND COOPERATION WITH THE OFFICE OF THE INSPECTOR GENERAL, INCLUDING CONFLICTS OF INTEREST**

Vendor agrees by bid submission to comply with all provisions of Louisiana Law as well as compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, as published on <http://ethics.la.gov> and applicable Jefferson Parish ethical standards and Jefferson Parish Terms and Condition.

**Inspector General:** It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the inspector general in any investigation, audit, inspection, performance review, or hearing pursuant to JPCO 2-155.10(19). Every parish contract and every bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program shall contain a statement that the corporation, partnership, or person understands and will abide by all provisions of JPCO 2-155.10.

**Conflicts of Interest:** Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

#### H. REQUIRED AFFIDAVITS

For convenience, all legally mandated affidavits have been combined into one form, entitled THE PUBLIC WORKS BID AFFIDAVIT. All bidders must submit with their bid submission, a completed, signed and properly notarized affidavit in its original format and without alteration in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid; however, the successful bidder must submit the original affidavit in its original format and without material alteration prior to, or at contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

#### I. BID REQUIREMENTS (BID DOCUMENTS, SPECIFICATIONS, BONDS, W-9 AND PAYMENT INFO)

Bidders must review the bid specifications and include any required documentation including but not limited to the LA Public Works Uniform Bid Form, Bid Security, Corporate Resolution or written evidence of signature authority, and the Public Works Affidavit. Pursuant to LA R.S. 38:2212(B)(3)(b), bidders shall also be responsible for providing any other documentation as required, i.e. federal grant documentation, etc. Please note that the payment and performance bonds must be supplied by the successful bidder at contract signing.

All vendors submitting bids should register as a Jefferson Parish vendor, if not already registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and click on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

Bidders must comply with all provisions of the General Terms and Conditions as approved by Resolution No. 136352 and/or 136353. A copy of these terms and resolutions may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, Louisiana 70053. Bidders may also obtain a copy by visiting the Purchasing Department's webpage at [www.purchasing.jeffparish.net](http://www.purchasing.jeffparish.net) and clicking on online forms.

**Bid Security:** Bidders shall provide bid security in the form of an electronic bid bond in the amount of five percent (5%) of the total bid price (Base Bid and any Alternates) (as per R.S. 38:2218). Such security will become the property of the Owner in the event the successful bidder fails or refuses to execute the Contract or fails to produce performance and payment bonds upon contract signing.

When submitting online, bidders must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.

**Performance Bond:** A performance bond is required in 100% of the contract amount and is due at the signing of the formal contract.

**Payment Bond:** A payment bond is required in 100% of the contract amount and is due at the signing of the formal contract.

**J. INSURANCE REQUIREMENTS**

All Bidders must submit with bid submission a current (valid) insurance certificate evidencing required coverages. Failure to comply will cause the bid to be rejected. The current insurance certificate will be used for proof of insurance at time of evaluation. Thereafter, and prior to contract execution, the low bidder will be required to provide final insurance certificates to the Parish which shall name the Jefferson Parish, its Districts Departments and Agencies under the direction of the Parish President and the Parish Council as additional insureds regarding negligence by the contractor for the Commercial General Liability and the Comprehensive Automobile Liability policies. Additionally, said certificates should reflect the name of the Parish Department receiving goods and services and reference the respective Jefferson Parish bid number.

**JEFFERSON PARISH REQUIRED STANDARD INSURANCE**

☒ **WORKER'S COMPENSATION INSURANCE**

As required by Louisiana State Statute, exception: Employer's Liability, Section B shall be \$1,000,000 per occurrence when Work is to be over water and involves maritime exposures to cover all employees not covered under the State Worker's Compensation Act, otherwise this limit shall be no less than \$500,000 per occurrence.

☒ **COMMERCIAL GENERAL LIABILITY**

Shall provide limits not less than the following: \$1,000,000.00 Combined Single Limit per Occurrence for bodily injury and property damage.

☒ **COMPREHENSIVE AUTOMOBILE LIABILITY**

Bodily injury liability \$1,000,000.00 each person; \$1,000,000.00 each occurrence. Property Damage Liability \$1,000,000.00 each occurrence.

**UMBRELLA LIABILITY COVERAGE**

An umbrella policy or excess may be used to meet minimum requirements.

**FOR CONSTRUCTION AND RENOVATION PROJECTS:**

The following are required if selected. Such insurance is due upon contract execution.

☐ **OWNER'S PROTECTIVE LIABILITY**

To be for the same limits of liability for bodily injury and property damage liability established for commercial general liability.

☐ **BUILDER'S RISK INSURANCE**

The contractor shall maintain Builder's Risk Insurance at his own expense to insure both the owner (Parish of Jefferson) and contractor as their interest may appear.

**INSURANCE DEDUCTIBLES** - The Parish Attorney with concurrence of the Director of Risk Management have waived the deductible section of the Terms and Conditions for all Invitations to Bid, until further notice.

**K. INDEMNIFICATION**

Bidder acknowledges that Bidder recovered the cost of any required insurance in the contract price as required by La.R.S. 9:2780.1(l) and that Bidder recovered any such cost for the purposes of insuring an obligation to indemnify Jefferson Parish, defend Jefferson Parish, or hold Jefferson Parish harmless and that Bidder's indemnity liability is limited to the amount of the proceeds that are payable under the insurance policy or policies that Bidder has obtained.





**Designation of Construction Contractor  
as Agent of a Governmental Entity  
Sales Tax Exemption Certificate**

\_\_\_\_\_, an agency of the United States government, or an agency, board, commission, or instrumentality of the State of Louisiana or its political subdivisions, including parishes, municipalities and school boards, does hereby designate the following contractor as its agent for the purpose of making sales tax exempt purchases on behalf of the governmental body:

Name of Contractor		
Address		
City	State	ZIP

This designation of agency shall be effective for purchases of component construction materials, taxable services and leases and rentals of tangible personal property for the following named construction project:

Construction Project	Contract Number
----------------------	-----------------

This designation and acceptance of agency is effective for the period

Beginning Date (mm/dd/yyyy)	End Date (mm/dd/yyyy)
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Purchases for the named project during this period by the designated contractor shall be considered as the legal equivalent of purchases directly by the governmental body. Any materials purchased by this agent shall immediately, upon the vendor's delivery to the agent, become the property of this government entity. This government entity, as principal, assumes direct liability to the vendor for the payment of any property, services, leases, or rentals made by this designated agent. This agreement does not void or supersede the obligations of any party created under any construction contract related to this project, including specifically any contractual obligation of the construction contractor to submit payment to the vendors of materials or services for the project.

This contractor-agent is not authorized to delegate this purchasing agency to others; separate designations of agency by this governmental entity are required for each contractor or sub-contractor who is to purchase on behalf of this governmental entity. The undersigned hereby certify that this designation is the entirety of the agency designation agreement between them. In order for a purchase for an eligible governmental entity through a designated agent to be eligible for sales tax exemption, the designation of agency must be made, accepted, and disclosed to the vendor before or at the time of the purchase transaction.

Designation of Agency			Acceptance of Agency		
Signature of Authorized Designator		Date (mm/dd/yyyy)	Signature of Contractor or Subcontractor Authorized Acceptor		Date (mm/dd/yyyy)
Name of Authorized Designator			Name of Contractor's or Subcontractor's Acceptor		
Name of Governmental Entity			Name of Contractor		
Address			Address		
City	State	ZIP	City	State	ZIP

This designation of agency form, when properly executed by both the contractor and the governmental entity, shall serve as evidence of the sales tax exempt status that has been conferred onto the contractor. No other exemption certificate form is necessary to claim exemption from sales taxes. The agency agreement evidenced by this sales tax exemption certificate must be implemented at the time of contract execution with the governmental entity. The contract between the governmental entity and his agent must contain provisions to authenticate the conferment of agency.

**RESTORATION OF SIDEWALKS, DRIVEWAY APRONS AND OCCASIONALLY THE  
ADJACENT STREET PANEL, FOR THE JEFFERSON PARISH DEPARTMENT OF  
STREETS AND ALL JEFFERSON PARISH AGENCIES AND MUNICIPALITIES  
EXCLUDING GRAND ISLE**

This is for a two (2) year contract for the restoration of sidewalks, driveway aprons and occasionally the adjacent street panel, for the Jefferson Parish Department of Streets, and all Jefferson Parish agencies and municipalities excluding Grand Isle.

**PRE-BID CONFERENCE:**

A non-mandatory pre-bid conference will be held at 10:00 a.m., on September 13, 2021 in the Jefferson Parish Purchasing Department located at 200 Derbigny Street, Suite 4400, Gretna, LA 70053.

The contract prices are to remain firm for the entire two (2) year contract.

**BONDS:**

**SURETY BID BOND:** A surety bond in the amount of 5% is due with the bid submission.

**PAYMENT BOND:** A payment bond in the amount of 50% of the bid is due at the signing of the formal contract.

**PERFORMANCE BOND:** A performance bond in the amount of 50% of the bid is due at the signing of the formal contract.

**LOUISIANA STATE CONTRACTOR'S LICENSE:**

Bidder must have a Louisiana State Contractor's License in the Category of Highway, Street, and Bridge Construction.

**GENERAL SPECIFICATIONS:**

All work shall be performed in accordance with Jefferson Parish Standard Details for Roadways, Sidewalks and Curbs, as well as applicable utilities. Copies are available at the Department of Engineering, Suite 802, Yenni Building, Jefferson, LA.

The terms and conditions of Resolutions 113646 or 113647, as amended, will be considered a part of the bid whether attached or not. A copy may be obtained from the Office of the Parish Clerk, 6th Floor, General Government Building, 200 Derbigny St., Gretna, LA 70053.

**SERVICE ENGINEER:**

A person licensed as a professional engineer in accordance with the State of Louisiana laws, who is employed by the Contractor to provide technical direction of the maintenance service.

**INITIALS: (ABBREVIATIONS)**

Wherever the following abbreviations are used in these specifications or the plans, they are to be construed the same as the respective expression represented:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ANS	American National Standards
ASA	American Standard Association
ASTM	American Society for Testing Materials
ATSSA	American Traffic Safety Services Association
AWWA	American Water Works Association
JDPDW	Jefferson Parish Department of Public Works
LADOTD	Louisiana Department of Transportation and Development

This is a sidewalk and driveway apron restoration contract (along with associated handicap ramps and adjacent street panels). It is intended to supplement work performed by regular maintenance forces of the Department of Public Works - Streets. Types of work under this contract include concrete slab removal and replacement, concrete curb repairs, sidewalk and drive apron replacement and handicapped ramps.

Contractor must be able to supply up to three (3) crews at the request of the parish representative for the duration of this contract. There will be times when the Contractor will be asked to supply at least one crew on each side of the Mississippi River (east bank & west bank) to perform work that is issued.

The definition of "job" shall be the work described on any one issued work order. Each "job" shall be estimated as to time required to complete the amount of work proposed. Many "job" sizes will be relatively small.

Estimated time for completion shall be in accordance to size of "job".

All of the work within the limits of each job shall be shown to the Contractor by a representative of the Department of Public Works prior to commencing work. Appropriate sketches and/or drawings may be furnished to the Contractor with each work order. Work sites may be scattered for an individual work order; however, every effort will be made to consolidate the work to minimize scattered work sites. The Contractor shall begin the work within ten (10) days after issuance of a work order. All street layouts for each work order shall be incidental to the bid item with no additional payment.

Each work order will be issued in writing with appropriate drawings if applicable, or other attachments and will designate a job number. All correspondence, billing, etc., pertaining to the work should reference the job number. Payment will be made upon receipt of detailed and itemized invoices and verification by parish inspectors regarding quantity and quality of work performed. Partial payment will be made only when completion is unduly delayed through no fault of the Contractor in which case requests for partial payment may be submitted monthly.

If the Contractor leaves the job incomplete for over a 15 day period, the Contractor shall be notified in writing by the Department of Streets that the terms of the contract are not being fulfilled and may be held in default of the contract. Liquidated Damages of two-hundred fifty dollars (\$250) per day, per crew, will be charged for not reporting to work.

However, if the Contractor has a valid reason to hold off on a job, due to extenuating circumstances, the Contractor must notify the Streets Department in writing; and, obtain written permission from the of Streets for the stipulated delay. Also, the Owner has the right to put a hold on a job at the beginning or when job is in progress without designating a reason. If the job is discontinued, the Contractor will be compensated only for the items of work actually done and not for any down time. Contractor shall not work during the holidays observed by Jefferson Parish unless otherwise authorized in writing by the director. Also, Contractor shall not schedule any contract work on major roads and thoroughfares between Thanksgiving and New Year holidays, or during Mardi Gras Season.

If any sworn statements of claims are filed during the term of this contract, the parish shall withhold the next accruing payment and shall have the authority to satisfy the claim and deduct the amount from payments due.

Adequate safety precautions will be taken for all work performed under this contract. Necessary barricades, signs, lights and warning devices including arrow board if required will be installed and maintained by the Contractor in accordance with Parish Traffic Engineering and safety standards.

All traffic control devices shall be defined as all signs, signals, markings and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or bikeway under the jurisdiction of Jefferson Parish.

All traffic control devices utilized under the terms of this contract shall be in accordance with the "Manual of Uniform Traffic Control Devices, latest edition) as published by the American Traffic Safety Services Association (ATSSA).

At the Contractor's own expense, he shall be responsible for providing safe and expeditious movement of traffic through construction zones, i.e., the immediate area of actual construction and all abutting areas used by the Contractor and which interferes with the driving or walking public.

Contractor responsibility includes, but is not limited to, such items as proper construction warning signs, signals, lighting devices, (including electrical/electronic flashing arrow board), markings, barricades, channelization, hand signaling devices, (flagging operations), construction warning signs, detour routing, and any/all additional signage required for proper traffic control shall be provided by the Contractor at no additional expense to Jefferson Parish.

All of the signing and traffic control devices shall be approved by Office of Traffic Engineering, Jefferson Parish Department of Public Works prior to starting the job. All expenses incurred by the Contractor to maintain traffic flow is incidental to the job, there shall be no added or additional payment.

During the performance of all work outlined in these specifications, the Contractor will exercise due caution regarding underground utilities and will cooperate with representatives of the utility companies and/or parish departments to avoid damage to their installations.

Contractor must locate, protect, support and maintain all subsurface, surface, and aerial utilities. In the event of any damage to existing utilities, Contractor shall restore service, as soon as possible at Contractor's expense. Contractor shall have the sole responsibility of resolving any



lawsuit and liabilities arising from defective workmanship, improper maintenance of utilities and/or work site.

Contractor should consult with the Department of Public Works Traffic Engineering Division immediately upon any vehicular or pedestrian safety or efficiency problem incurred as a result of construction of a project.

**WORK STOPPAGE DUE TO PUBLICALLY DECLARED EMERGENCY:**

If there is an emergency declared by the federal, state, or local government in Jefferson Parish or in any portion thereof, then all work on this project shall cease until such time as the Contractor is instructed to resume work by department director (no one else) who has jurisdiction over the project.

If there is any type of work which must proceed to prevent harm to persons or property, or damage to the project itself, then Contractor should immediately contact the department director for necessary instructions. If Contractor is unable to contact the department director, Contractor may perform the work necessary to prevent such harm in accordance with industry safety standards.

Contractor shall be entitled to an extension of time for the period of the stoppage, but shall not be entitled to any additional compensation by reason thereof.

**THE BELOW SPECIFICATIONS WILL APPLY TO ITEMS 0010 THROUGH 0050**

**PORTLAND CEMENT CONCRETE PAVING**

(Removal, disposal and replacement of street panels (and curb), sidewalks, driveway aprons and handicapped ramps)

Cost of this work will include removal and disposal of concrete (panel and/or curb), earthwork excavation, fill material (pump and river sands and crushed concrete), and the cast-in-place detectable warning system (i.e. 24" x 48" ADAAG warning pad with truncated domes) (Color: Terra Cotta /Reddish).

**PAVEMENT REMOVAL AND DISPOSAL**

There will NOT be a separate pay item for "Removal & Disposal". That cost will be included in the new PCC pay Items (#0010 - #0055).

Pricing should include all costs for labor, equipment and material necessary to remove and dispose of existing pavement. Should the parish desire, the Contractor shall dump broken pavement at a disposal site designated by the parish at no added cost, provided that the disposal (dumping) site is within a 21-mile radius of the work site and may involve crossing the Mississippi River. Additionally, should the parish desire, the Contractor will load broken pavement onto parish trucks at the work site at no added cost, provided that the parish trucks are present at the work site for loading as the pavement is being removed and do not unduly delay the Contractor's work.

Care must be exercised so that jointing materials and devices adjacent to the concrete to be removed shall not be damaged. Any pavement damaged by the Contractor as a result of negligence, either willful or accidental, will be replaced at the Contractor's expense.

**PORTLAND CEMENT CONCRETE**  
(sidewalks, driveway aprons, street panels)

4000 PSI - 72 hour - high early strength with superplasticizer and other additives, if applicable.

This item covers the furnishing of all materials and installation of PCC pavements for thickness as shown. Concrete shall be Class A, 4000 PSI 72 hours high early strength.

Bid price shall include all costs for labor, equipment and materials described under this item of the bid proposal including any removal and disposal. All required jointing materials shall be included in price bid under each item. Method of jointing shall be the same as the existing joints in the area of work. Contractor will drill into existing sidewalk, driveway aprons, and/or street panels and insert dowels/deformed bars with epoxy as per parish standard drawings.

Damaged, missing, and/or new dowel bars longitudinal/transverse) and star lugs shall be replaced at no additional cost to the parish - 1-1/8" x 18" smooth dowel bars or 1" plastic-coated dowel bars on 12" center shall be used. The bars shall be placed in the existing pavement by drilling 1-1/2" holes to a depth of 9" and filling with an approved epoxy grout before insertion of the dowel bars. Contractor is responsible for any deformed bars for longitudinal joints. If toeing under the slab is approved as an option by the parish representative in lieu of doweling, there is no additional compensation for concrete used for toeing. All costs incurred for this task will be the Contractor's responsibility. Bid price shall also include adequate curing of the concrete placed and the proper sealing of contraction and expansion joints.

Contractor must also provide adequate / approved washout bins for ready-mix concrete suppliers to use. Contractor (ready-mix concrete suppliers) will NOT be allowed to washout into the street, parish servitude (grass), equipment buckets or sand piles. The cost for these bins will be incidental to the concrete pay items.

Bid prices shall also include cost of providing engineering/surveying for alignment, grade, profile, survey stakes, topography when necessary and as required to improve the roadway alignment, curb and gutter layout, drain line installation, etc. Compensation for this shall be incidental to corresponding bid items in the maintenance contract. There is no other compensation. All layouts shall be the responsibility of the Contractor.

Mixes shall conform to Louisiana Department of Transportation and Development Standard Specifications for Roads and Bridges, latest edition.

**EXCAVATION AND FILL MATERIAL**

Covers work and material generally associated with base, shoulder, drainage and dress-up work.

There will NOT be a separate pay item for "Excavation & Fill Material". That cost will be included in the new PCC pay items (#0010 - #0050).

Should the parish desire, the Contractor will dump excavated materials at a disposal site designated by the parish at no added cost, provided that the disposal (dumping) site is within a 21-mile radius of the work site and may involve crossing the Mississippi River. Additionally, should the parish desire, the Contractor will load excavated material onto parish trucks at the work

site at no added cost provided that the parish trucks are present at the work site at the time of excavation and do not unduly delay the Contractor's work. However, ultimate responsibility for disposal of all of the excavated material rests with the Contractor.

The Contractor will exercise due caution regarding underground utilities during excavation operations and will notify and coordinate with representatives of utility companies and parish departments to avoid damage to their installations. However, Contractor is ultimately responsible for all damages caused by his actions. Also, if any conflicting utility needs "relocation or adjusting", the Contractor will allow reasonable time to accomplish the task. There will be no additional compensation for the time delay caused by the conflicts.

No trucks with greater load capacity than 18 cubic yards shall be allowed on residential streets for excavation, concrete/asphalt removal or fill material delivery without authorization from the engineer. Should the Contractor fail to meet this condition, all damage resulting will be repaired at the Contractor's expense.

#### **HANDICAPPED RAMPS**

Six (6) inch and eight (8) inch  
4000 PSI/72 hour high early strength  
Concrete for Handicapped Ramps

Where necessary or as directed by the engineer, existing sidewalk and curbing at intersections and medians shall be broken out/or saw cut, removed and replaced with new Portland cement concrete curb ramp for the handicapped. Curb ramps shall conform to ADAA (Americans with Disabilities Acts Accessibility) Guidelines 4.7. Bid unit price for PCC (#0030 & #0040) should include cost for labor, equipment and materials necessary to provide coverage of the ramp as per the ADAA Guidelines. Detectable warning shall contrast visually with adjoining surface (reddish like "terra cotta"). Cost for batture sand for dress, breaking out and removal of existing sidewalk will be incidental. 24" x 48" cast-in-place detectable warning system consisting of raised truncated domes will be incidental to the bid unit of concrete pavement (1 per ramp/corner). (Contractor must use one-piece truncated dome mats/pads made of a homogenous glass and carbon reinforced composite which is colorfast and UV stable. Panel color shall be uniform throughout. Backside of panel should have ribs that embed within the curing concrete.) Any other materials or labor needed to accomplish curb ramps for the handicapped must be incidental to the above items.

#### **THE BELOW SPECIFICATION WILL APPLY TO ITEM 0055**

PCC curbing to be placed using concrete forms and hand placement. Curbing around the radius/corners or in a ramp area will be poured monolithically with the concrete panel from panel joint to panel joint, unless directed otherwise by the Parish Inspector. Other curbing not required to be poured monolithically will poured as per Parish specifications and will be bonded to the panel surface in a manner approved by the Department of Streets, which may include doweling and/or approved bonding agent. This one item will be used to pay for any and all curbing per linear foot. (There will be no additional payment to remove and replace curbing on existing concrete panels that are NOT being removed.) Maximum curb height will be 8 inches. Maximum curb width will be 15 inches. Concrete shall be Class A, 4000 PSI in 72 hours, high early strength.

**THE BELOW SPECIFICATION WILL APPLY TO ITEM 0060**

Item #0030 and #0040 are for 6" and 8" handicap ramps, respectively, with the price to include the cost for wire mesh. Item #0060 (steel mesh) is not to be charged in addition to Item #0030 and #0040. Item #0060 is for use when replacing sections of sidewalk and driveway that may have previously been constructed using steel wire mesh. It is to be used to replace those sidewalks and driveways in kind.

**THE BELOW SPECIFICATION WILL APPLY TO ITEM 0065**

Item #0030 and #0040 are for 6" and 8" handicap ramps, respectively, with the price to include the cost for one ADAA approved detectable warning pad (24" x 48"). Item #0065 (detectable warning pad) is for use when a corner ramp application requires more than one detectable warning pad, or when placing detectable warning pads near a driveway crossing.

Detectable warning shall contrast visually with adjoining surface (reddish like "terra cotta"). 24" x 48" cast-in-place detectable warning system must have raised truncated domes per ADAA specifications. Contractor must use one-piece truncated dome mats/pads made of a homogenous glass and carbon reinforced composite which is colorfast and UV stable. Panel color shall be uniform throughout. Backside of panel should have ribs that embed within the curing concrete.

**THE BELOW SPECIFICATIONS WILL APPLY TO ITEMS 0070 THROUGH 0110**

Additional charge for replacing special/decorative pavement surfaces with in-kind material.

Contractor must get approval from Jefferson Parish Department of Streets (inspectors) prior to selecting/finalizing replacement material.

Pavement will be per square yard of pavement surface that is reinstalled.

All labor and material incidental to the installation of the pavement surface shall be included in this price.

**THE BELOW SPECIFICATIONS WILL APPLY TO ITEM 0120**

Sodding shall be replaced in-kind as directed by the parish representative. If in doubt of which type of grass is found, use St. Augustine sod.



**THE BELOW SPECIFICATIONS WILL APPLY TO ITEM 0130**

Stamped Concrete/Sidewalk Construction for Fat City Area  
Including the following: (or equal product)

- Texturing – Lithotex – Pattern:
  - Ashler Slate:
    - 400A
    - 400B
    - 400C
- Coloring – Lithochrome Color Hardener
  - A-85 “Muted Green”
- Release agents – Lithochrome Antiquing Release
  - 1138-5 “Blue Smoke”
- Sealing
  - Scofield Cureseal-S - Gloss

Refer to the attached specifications labeled ***Stamped Concrete System***, for information related to repairing stamped concrete / sidewalk for the Fat City area located in Metairie, LA.

**THE BELOW SPECIFICATIONS WILL APPLY TO ITEM 0133**

Refer to the attached specifications labeled ***Specifications for Pervious Concrete Pavement***, and the information that follows.

PERVIOUS CONCRETE WALKS & DRIVES  
(or approved equal)

**DESCRIPTION:**

This work consists of furnishing all plant, equipment, labor and materials required for the construction of patterned, colored, pervious concrete ornamental sidewalks, pervious concrete drives, and pervious concrete parking areas in accordance with the lines and grades shown in the plans or established in the field by the Engineer. Work shall be conform to all requirements of ACI 522.1-13, 'Specification for Pervious Concrete Pavement, published by the American Concrete Institute, except as modified herein. When applicable, work shall be performed in accordance with the provisions of Section 706 of the Louisiana Standard of the Specifications for Roads and Bridges, 2006 Edition (Blue Book), and latest revisions, except as otherwise noted in these specifications.

**MATERIALS:**

The pervious concrete used for sidewalks and driveways shall comply with the mixture proportions specified herein.

**Mixture Proportioning:**

For driveways, the total cement content shall be a minimum of 630 lbs. /CY.

Fly Ash shall not exceed 20% and Slag shall not exceed a 50% maximum.

The maximum water-cement ratio for this product shall be 0.35.

The bulk volume of aggregate per cubic yard shall be equal to 27 cubic feet when calculated from dry rodded density (unit weight) determined in accordance with ASTM C29. Fine aggregate, if used, should not exceed three (3) cubic feet and shall be included in the total aggregate volume.

Admixtures shall be used in accordance with manufacturer's recommendations.

The quantity of water used in the previous concrete mixture shall facilitate placing, compaction, and finishing to the desired surface characteristics. The appropriate water content will give the mix a wet metallic sheen without causing the cement to flow from the aggregate and be sufficient for adequate hydration. If the water content is too low, the mix may be inconsistent and produce poor bond strength. A high water content may cause the cement to migrate toward the bottom and fill the voids as well as create a poor surface bond.

Testing shall be in accordance with ACI 522.1-13 Section 1.5.

**THE BELOW SPECIFICATIONS WILL APPLY TO ITEM 0135**

KBI Flexi- Pave HD2000 Specifications (or approved equal)

1. General
  - The Flexible Porous Paving shall be KBI Flexi-Pave HD2000 made from recycled passenger tires, crushed stone and a urethane binding agent as manufactured by K.B. Industries, Inc. (KBI), 7300 Bryan Dairy Road, Suite 400, Largo, FL 33777. Tel 727 723 3300.
  - All components, materials and compounds shall be 100% sourced and manufactured in the USA.
2. Submittals
  - The Flexible Porous Paving manufacturer shall submit (upon request of the Department):
    - Certificates stating that materials meet or exceed the specified contract requirements.
    - Site handling and storage instructions.
    - Mixing and installation instructions.

- A sample that reflects the characteristics of the material to be installed. The sample, upon approval, shall be maintained as the standard of minimum quality for all the proposed surfacing and paving work required for the project.

3. Contractor

- The Contractor installing the Flexible Porous Paving shall be a Certified Installer of KBI Flexi-Pave HD2000.
- Contractors bidding for installation for the KBI Flexi-Pave HD2000 may become Certified Installers by contacting KBI and successfully completing the Certified Installer program.
- The Contractor shall;
  - Furnish all labor, materials, tools, equipment, and incidentals required to install KBI Flexi-Pave HD2000.
  - Provide an adequate numbers of skilled workers who are trained and experienced with installing KBI Flexi-Pave HD2000 and are familiar with the specified contract requirements and the methods needed for its installation.
  - Install the crushed stone sub-base as described in the specifications and shown on the contract drawing unless the sub-base is installed/provided.
  - Install the KBI Flexi-Pave HD2000 to depth and width as described in the specifications and shown in the contract drawing.
  - Reduce the risk of damage to the Flexible Porous Paving surface by not allowing track vehicles (metal or rubber), forklifts (warehouse-variable reach), main lifts (booms or scissors), and/or dumpsters or roll-off containers on the KBI Flexi-Pave HD2000 either during or following installation.

4. Products

- Recommended sub-base shall be crushed stone. KBI will provide advice on appropriate sub base for each installation and the materials based on the application and project location.
- Crushed Stone;
  - For load bearing applications KBI Flexi-Pave HD2000 shall be installed over a minimum of 4" (100mm) of compacted crushed concrete or crushed stone aggregate to a density of 95% minimum.
  - The sizing of the stone and base soil will directly represent the desired "Curve Number" (percolation rate) required.
- KBI Flexi-Pave HD2000.
  - The KBI Flexi-Pave HD2000 shall be installed in accordance with the manufacturers written instructions to an average depth of 1.5 inches over the prepared sub-base.
  - The KBI Flexi-Pave HD2000 shall be of these colors: black, cypress, redwood, bark brown, or green.
  - The KBI Flexi-Pave HD2000 shall be mixed with a urethane binding agent based on MDI Polyether Polyols and shall be free of extender oils to prevent leaching over time. Binders that use extender oils will not be acceptable.
  - The KBI Flexi-Pave HD2000 shall be cured and fit for use within 24 hours of installation.

5. Quality Assurance

- The Contractor is responsible for supplying and installing a warranted material that meets, or exceeds, the manufacturer's specifications and testing:
  - ASTM C 666/C/666M- Freeze-Thaw testing with no cracks or breaks through 300 cycles of testing.
  - Designated as "Highly Permeable" under FL DOT FM 5-565 permeability testing.
  - Independent testing showing a perk rate of 2400 gph (40 gpm) per sq. ft. or higher.
  - Scuff/Power Steering Resistance in accordance with ISSA TB 100 / ISSA TB 139.
  - Accelerated Weathering using ASTM 4798.
  - Hamburg Loaded Wheel Testing TX DOT 242-F, must be equivalent or better than 2.3 rut depth at 8,000 cycles and full recovery within 24 hours.
  - Static Creep Testing TX DOT 231-F, shall be equivalent to or better than total strain +2.703% and permanent strain equal to 0.514%.
  - Resilient Modulus Testing in accordance with ASTM D 4123 shall be equivalent or better than 68,495 pounds.
  - Slip resistant and ADA compliant, in accordance with ASTM D 2047 testing.
  - Heat resilient to 400 °F in accordance with ASTM D 4123 testing.
  - Sound absorbent, in accordance with ASTM C423-09a / E795-05 testing.
  - Compression tested and be able to withstand 250 psi without permanent deformation or damage.
  - Have a leachate less than 6 parts per billion and containing no organic compounds or heavy metals.
  - The material shall be resistant to the following elements: transmission, hydraulic, and brake fluids, gasoline, diesel, saltwater, oil, chlorine, ozone, bromine, and muriatic acid.

6. Project Conditions

- The Contractor shall provide appropriate and adequate protection to adjacent areas including but not limited to:
  - Protection of adjacent work space from splashing of Flexible Porous Paving materials.
  - Remove all stains from exposed surfaces of paving, structures, and grounds.
  - Remove all waster and spillage.
  - Provide suitable protection to assure no damage or disturbance to existing improvements or vegetation before starting work and maintain protection throughout the course of the work.
  - Restore and repair areas, at no additional cost to the Owner, that have been damaged as a result of construction work, including existing paving on or adjacent to the site, to their original condition or repair as directed to the satisfaction of the Owner's Representative.

7. Weather

- KBI Flexi-Pave HD2000 urethane binder is engineered based on the geographical location of the project and climate expectations during installation. KBI will provide the appropriate binder for each installation and the materials delivered will be based on project location and seasonality.



- KBI Flexi-Pave HD2000 shall not be installed when the ambient air temperature in the shade near the installation side is above 110°F or below 50°F. Temperatures below 50°F can extend the curing time and would fall outside of normal “use ready in 24 hours” guidelines.
  - The urethane binder shall be stored on site at between 59° - 77° F and used within 6 months of delivery.
  - The Contractor shall not pave on days when rain is forecasted, unless a change in the weather results in favorable paving conditions as determined by the Owner’s Representative.
  - In the event of rain on days prior to installation, the sub base must be dry and not contain any standing or moving water.
8. Warranty
- The KBI Flexi-Pave HD2000 shall have material warranty of 5 years from the date of installation.
  - The Manufacturers’ warranty shall be issued on completion of the installation and final inspection.

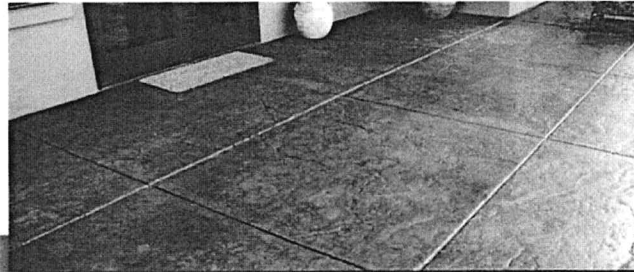
#### **TECHNICAL SPECIFICATIONS FOR ALL WORK:**

The Contractor's work shall conform in all aspects to the LADOTD Standard Specifications for Roads and Bridges, latest edition, and revisions unless specified herein.

#### **TESTING**

The parish at its own will and expense can appoint an independent testing laboratory for material and construction testing. No advance notice of testing will be provided to the Contractor. Also, testing by parish will not relieve Contractor from his own testing procedures. In the event test results by Contractor or parish do not meet the required specifications, Contractor shall replace or reconstruct and correct all the deficiencies to satisfy the specifications.

INFORMATION PURPOSES ONLY – FOR ITEM 0130



Eliminate guesswork and avoid compatibility issues by choosing the complete Scofield System of high-quality, engineered concrete stamping, coloring & sealing products.

**ENGINEERED for  
MAXIMUM SUCCESS!**

## Texturing

### LITHOTEX® Pavecrafters® Imprinting Tools and Embossing Skins

The professional choice for transforming plain concrete into beautiful, realistic looking hardscapes. LITHOTEX Pavecrafters are available in dozens of distinct, finely sculpted patterns and textures, and are the #1 choice of contractors\*.

## Coloring

### LITHOCHROME® Color Hardener

Produces beautiful, permanent, nonfading colors and long-wearing surfaces ideal for pedestrian or vehicular traffic. LITHOCHROME Color Hardener is the preferred coloring agent for use with LITHOTEX Pavecrafters.

### EMERCHROME® Floor Hardener

A heavy-duty, color-matched hardener that produces a dense, hard, abrasion-resistant surface that is ideal for areas subject to heavy pedestrian or vehicular traffic.

## Release Agents

### LITHOCHROME® Antiquing Release

A colored, powdered bond breaker that provides a natural, weathered, antique appearance by accentuating the depth and detail of the pattern.

### LITHOTEX® Liquid Release

A clear liquid bond breaker used when imprinting colored or uncolored concrete or imprintable cementitious toppings where an aged or antiqued appearance is not desired.

## Sealing

### SCOFIELD® Selectseal-W™

A high-performance, waterborne, low VOC, clear acrylic-polyurethane sealer used to protect the appearance of chemically stained, antiqued or imprinted concrete. It is highly durable and significantly improves resistance to staining, abrasion and the effects of UV radiation.

### SCOFIELD® Cureseal-W™

A waterborne, low VOC, clear concrete sealer that helps protect against staining from incidental contact with automotive oil, grease and many other materials. It produces a low-maintenance film that improves resistance to deicing salts, weather and UV radiation.

### SCOFIELD® Cureseal-S™ Matte and Gloss


A premium-quality, solvent-borne, clear concrete sealer that protects against staining and improves resistance to abrasion, freeze-thaw cycles, deicing salts, weather, UV, and many chemicals.

### CEMENTONE® Clear Sealer

An economical, waterborne, low VOC sealer formulated for protecting interior or exterior concrete not subject to heavy traffic, and where a low gloss is desired.

\*Based on an independent survey by readers of CONCRETE CONSTRUCTION magazine.

 Get more product details, and access Tech-Data Bulletins on our website.

 Prior to beginning job, consult all appropriate Scofield Tech-Data Bulletins.

  
**SCOFIELD  
SYSTEMS**

1-800-800-9900

\*Based on an independent survey by readers of CONCRETE CONSTRUCTION magazine.

[www.scofield.com](http://www.scofield.com)

# LITHOTEX® Pavecrafters®

professional imprinting tools and embossing skins  
for authentic textures and realistic patterns



www.scofield.com

## ASHLER STONE RANDOM INTERLOCKING PATTERN ORDER NUMBER 400 A,B,C



### Texture Description:

Surface texture is that of rough, split, natural stone. Edges are sharp. Corners are square.

### Pattern Description:

Pattern is formed of rectangular stones in various sizes laid in a random manner. The sides of the stones vary from 3-5/8" (92 mm) to 11-1/2" (292 mm). Inside joints have the appearance of a smooth-grouted, raked joint, approximately 1/8" (3 mm) deep. Outside edges have a surrounding joint, 1/8" (3 mm) wide, which matches the inside joints when tools are joined. The completed pattern is formed by use of three tools, A, B, and C, each with a different random arrangement of stones.



Imprinted concrete pattern has been created using:  
CHROMALUX® Admixtures  
C-12 Mero Beige  
LITHOCHROME® Antiquing Release  
12MG Cordovan Brown  
SCOFIELD® Cureseed-W® Semi Gloss

### Also available:

Textured Skin Tool 1000

PROFESSIONAL GRADE TOOLS - P400

STANDARD GRADE TOOLS - S400

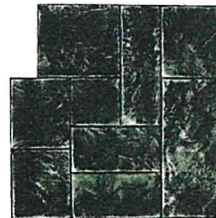
FLEXIBLE TOOLS - F400

23-1/2"  
(597 mm)



ORDER NUMBER: 400 A

23-9/16" (598 mm)



ORDER NUMBER: 400 C



ORDER NUMBER: 400 B

natural STONES

PATTERN SHEET D-400.01

This pattern sheet is meant as a reference only. Read the Scofield Tech-Data bulletin T-404 LITHOTEX Pavecrafters for additional information, layout suggestions, and installation instructions. Creating layouts for imprinted concrete requires skill and practice. Follow professional standards and practices, including those published by the American Concrete Institute (ACI).

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• [Stamped Concrete main](#)



#### RELEASE AGENTS

**LITHOCHROME® Antiquing Release** is an odorless, high-performance, colored, powder stamp tool release. Use it to improve the ease of separating concrete stamp tools, embossing skins or texturing tools from the freshly placed concrete or cementitious materials they imprint. LITHOCHROME Antiquing Release adds variegated color to the imprint, and can increase the perceived depth of stamp patterns.

Apply LITHOCHROME Antiquing Release to the entire surface to be textured immediately prior to stamping. Its hydrophobic nature will help prevent the wet cementitious material from sticking to the pattern tool, and improve print quality. See Tech Data Bulletin A-854 for full application instructions.

A-53 Arizona Tan	0256 Ash White*	1138-S Blue Smoke+SS	A-59 Beige Cream*	0568 Bush Beige*	A-26 Brick Red
1139 Burberry Beige*	A-33 Classic Gray	A-27 Dark Red	A-21 Deep Charcoal	A-25 La Crescenta Brown	3611 Oyster White*
A-55 Pecan Tan	A-57 Platinum Gray	A-24 Russet	A-85 Muted Green	A-50 Slate Gray	4948 Smoke Beige*
A-51 Steadman Buff	5183 Stone Gray*	A-29 Terra Cotta	A-28 Tile Red	5921 Walnut	5758 Weathered Sage*

Also Available:

**LITHOTEX® Liquid Release** is a high-performance, odorless stamp tool release solvent designed to improve the ease of separating concrete embossing stamps, skins, and texturing tools from freshly poured cementitious surfaces. It is non-film forming and will not interfere with future concrete coloring materials, paints, sealers, or water repellent treatments.

**SCOFIELD® Liquid Release SG** is an economical, scented release solvent for use when imprinting concrete or cementitious toppings to provide easy release of the tools. Scofield Liquid Release SG is not intended for use as a vertical formwork release, bond-breaker, or mold release.



## LITHOTEX® Pavecrafters® PROFESSIONAL GRADE IMPRINTING TOOLS

*A system of mat-type imprinting tools for texturing freshly placed architectural concrete and SCOFIELD® Texturetop® Stamp Grade System toppings.*

TECH-DATA BULLETIN TD-27.07 Rev. 1.15.2015

■ LITHOTEX® Pavecrafters® Professional Grade Imprinting Tools are a system of matched tools used to transform the surface of freshly placed architectural concrete flatwork and SCOFIELD Texturetop Stamp Grade System toppings into patterns that mimic other building materials. By combining the structural strength and wear resistance of concrete with the look of other paving materials, they create natural appearing, low-maintenance, textured surfaces in a wide variety of imprinted patterns.

■ For best results LITHOTEX Pavecrafters Professional Grade Imprinting Tools should be used to texture plastic concrete color-hardened with LITHOCHROME® Color Hardener or EMERCHROME® Floor Hardener or to imprint SCOFIELD Texturetop Stamp Grade System cementitious toppings.

Producing imprinted architectural concrete requires skill and practice. Choice of imprinting pattern, layout and joint placement, concrete mix design and installation, experience in use of the materials, choice and color of coloring agent(s), color-hardener coverage and application procedures, weather, imprinting texture and techniques, choice and color of bond-breaking materials, use of chemical stains and color combinations, curing, antiquing-release removal techniques, sealing materials, and other factors will each affect the final performance and appearance of the imprinted concrete.

A texture should be chosen that will provide adequate slip resistance for the area's intended use. Layouts should be carefully planned and thoroughly checked. Representative jobsite samples must be produced and approved as described in section 8. *Jobsite Samples* prior to concrete installation.

Variations in color and texture should be expected and are normally desired, since they increase the natural appearance of the surface.

The use of a bond-breaking agent is required so that tools will not stick to the surface of the plastic concrete, tearing it when the Pavecrafters tool is lifted. The use of LITHOCHROME® Antiquing Release, LITHOTEX® Liquid Release, or SCOFIELD® Liquid Release SG is recommended. Solvent-based liquid release agents other than those produced by Scofield may cause LITHOTEX Pavecrafters Professional Grade Imprinting Tools to deteriorate over time and their use will void the warranty.

When using LITHOCHROME Antiquing Release, enough material must be applied so that moisture does not migrate to the surface, causing the texturing tool to stick. However, avoid application of an excessive amount or texture detail may be diminished.

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are designed for imprinting plastic architectural concrete flatwork and, though they may be used on the surface of freshly stripped and plastered vertical concrete, such as risers, they are not intended for extended use on vertical surfaces.

For a longer work life, LITHOTEX Pavecrafters Professional Grade Imprinting Tools should be used on concrete that is in the proper stage of plasticity and after each use, should be cleaned and stored as described in section 13. *Tool Maintenance* and section 7. *Storage and Work Life*.

■ LITHOTEX Pavecrafters Professional Grade Imprinting Tools are the primary tools in a system designed for ease of use and the highest productivity. When used in conjunction with companion accessory tools, they form a complete set of texture-matched tools, allowing design placement under a variety of job conditions.

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are used to produce the main pattern. Single-design tools may produce the entire pattern, or several different tools may be required, each forming a variation of the pattern. Depending on the design, Professional Grade Imprinting Tools may be used to form repeat patterns or rotated or staggered to vary the design. LITHOTEX Pavecrafters Professional Grade Imprinting Tools provide a rigid working surface, are equipped with handles for ease of placing, and normally include grout or joint lines. Irregularly shaped tools are designed with markings on the top of the tool to aid in pattern alignment.

Border tools are used to form borders around or bands through the design, and may complement or contrast with the texture and pattern of the Professional Grade Imprinting Tool. They are equipped with handles and normally include grout or joint lines.

Floppy tools are used to complete sections of a design in areas where a more pliable tool is required. They are extremely flexible and are matched in texture, pattern, and size to the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools.

Filler tools are used to fill in small sections of the design, such as a single masonry unit or a corner. They normally include grout or joint lines and are matched to the texture and pattern of the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools.

Texturing tools are designed for applying surface texture only, without grout or joint lines. They are primarily used in hard-to-reach areas, for touching up damaged surface sections, and to texture adjacent vertical surfaces such as risers and retaining or planter walls. Matching the texture of the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools, they are very flexible with a maximum size of 1 square foot (305 mm²).

■ LITHOTEX Pavecrafters Professional Grade Imprinting Tools are available in a wide variety of textures and patterns. For many individual patterns, a pattern detail sheet is available which shows tool dimensions, the completed pattern, and information about companion tools and products. Please contact Scofield for available patterns and to request specific pattern detail sheets.

■ The length and width of individual Pavecrafters tools varies depending on the type of tool and the pattern. Tool dimensions are shown on the Scofield *Pattern Detail Sheet* for many patterns and are given on the *LITHOTEX Pavecrafters Professional Grade Imprinting Tools Price List*.

L. M. SCOFIELD COMPANY 15 3 CONCRETE MATERIALS





**LITHOTEX® Pavcrafters® TD-27.07**

Refer to [www.scofield.com](http://www.scofield.com) for the most recent Scofield Tech-Data Bulletins

■ Pavcrafters tools in custom textures, patterns, and sizes can be manufactured to meet individual design requirements. Custom tools can be created from samples, or from drawings showing accurate dimensions, elevations, and cross sections. Custom tools require the creation of a new master and a charge for designing the master will be incurred. Contact Scofield about the manufacture of specific custom tools.

■ LITHOTEX Pavcrafters Professional Grade Imprinting Tools are factory-packed so that they remain flat during transportation. To prevent deformation during storage and between uses, Pavcrafters tools must be stored flat, textured face up, with no objects resting on top. Storage should be under roof in a cool, clean area out of direct sunlight (UV) and away from excessive heat. All surfaces should be kept clean and covered. Covering with opaque plastic sheeting or tarpaulins is recommended. Work life depends on the amount of use, care taken of the tool during use, tool maintenance, and storage conditions.

■ Prior to concrete placement, a sample slab, and if included in the design, vertical surfaces such as risers and retaining walls, must be produced and approved for each pattern and layout specified. Samples must be of representative size, a minimum of 100 square feet (10 m<sup>2</sup>), so that the color combinations, pattern layout, installation techniques, and timing can be confirmed and approved. All procedures should be performed by the same workers that will produce the project imprinted concrete, using the same techniques, materials, Pavcrafters tools, and other required tools or equipment.

Producing imprinted architectural concrete requires skill and practice. Jobsite samples allow selected colors, materials, tools, and construction techniques to be evaluated and approved, or adjusted when needed. Jobsite samples are especially important when the imprinted surface is antiqued or is to be chemically stained later.

For safety considerations, the entire surface of the jobsite sample must be inspected after completion to verify and approve the adequacy of wet and dry slip resistance.

■ Since the size of each Pavcrafters tool will vary depending on the texture and pattern, the layout should be determined in advance for each area to be imprinted. Area dimensions and tool placement should be planned to produce an optimum appearance from the specified pattern.

Areas to be imprinted must be designed so that their dimensions are in multiples of those of the imprinting tools plus approximately 1/16 inch (2 mm) per tool to allow for movement during imprinting. Since variations occur in straightness, pattern placement should not directly follow walls, but start at the form lines.

Imprinting installations normally follow straight lines, even when the substrate concrete does not, as often happens when imprinting curved walks and drives. When possible, place patterns to avoid looking down long grout or joint lines, making minor straight-line placement errors more noticeable. The best appearance will be obtained if long grout or joint lines are at an angle to the primary line of sight.

Elements that break or interfere with the pattern such as columns, walls, steps, planters, and drains should be considered and their placement or the pattern placement planned so that natural stopping points are formed. When possible, construction joints should be placed so that they are masked in the pattern, usually along pattern grout lines or boundaries.

Predetermined measuring points should be included in the plans or drawings for use in the initial alignment of the pattern and to check alignment accuracy as imprinting proceeds.

■ When using equipment and materials during preparation and installation, suitable protective gear must be worn and government regulations, manufacturer's instructions, and all applicable safety requirements must be followed.

Depending on the pattern and layout, hand tools such as chisels for hand-placing joint and grout lines or brick-mason jointers for dressing joints may be required. All equipment and materials considered for use should be tested for suitability and appearance as described in section 8. *Jobsite Samples*.

The concrete coloring material for freshly placed concrete should be LITHOCHROME Color Hardener. It allows the production of sharp, clear, wear-resistant textures, and creates durable, dense and easy-to-maintain imprinted surfaces with excellent color intensity. EMERCHROME Floor Hardener is recommended for imprinted concrete when a heavy-duty surface is required in heavy traffic areas. Concrete integrally colored with CHROMIX® Admixtures for Color-Conditioned Concrete can also be imprinted. When resurfacing and imprinting or texturing existing concrete surfaces, SCOFIELD Texturetop Stamp Grade System colored cementitious toppings should be used. SCOFIELD Texturetop Stamp Grade effectively performs at depths from 1/8 inch (3 mm) to 3/8 inch (10 mm), and can be imprinted with LITHOTEX Pavcrafters Professional Grade Imprinting Tools that have a profile depth that is half or less of the application thickness. Additional information is available in Scofield's Tech-Data Bulletins TD-1110 LITHOCHROME Color Hardener, TD-1120 EMERCHROME Floor Hardener, TD-1200 CHROMIX Admixtures for Color-Conditioned Concrete, or TD-2440 SCOFIELD Texturetop Stamp Grade System. The appropriate Tech-Data Bulletin must be read completely before using.

The bond breaker, LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG helps prevent the imprinting tools from sticking to the fresh concrete and marring its fragile surface. For an antiqued effect, LITHOCHROME Antiquing Release in a different color than that of the colored surface should be chosen. After the antiquing release is applied, a portion of the colored material becomes embedded in the surface where it is trapped by the hardening concrete. When the surface is subsequently washed and sealed, an attractive, variegated, mottled, and antiqued appearance is obtained with colors ranging from that of the underlying concrete to that of the antiquing release, with mixtures of the two the most likely. If a more monochromatic color effect is desired, a color matching that of the colored surface should be used. When an antiqued appearance is not desired, colorless LITHOTEX Liquid Release or SCOFIELD Liquid Release SG is used to provide easy release of the tool and reduce surface marring. Scofield's Tech-Data Bulletin TD-1410 LITHOCHROME Antiquing Release, TD-3611 LITHOTEX Liquid Release, or TD-3612 SCOFIELD Liquid Release SG must be read completely before using.

■ Prior to placing concrete, representative jobsite samples must be produced as described in section 8. *Jobsite Samples*. Surrounding areas and adjacent surfaces should be protected, work areas roped off and appropriate sections closed to traffic. For exterior hardscapes, landscaping should be protected, parked vehicles removed, and doors and windows closed in nearby buildings to prevent colored dust from entering. For interior floors, walls should be protected and adjacent areas sealed off to prevent colored dust or construction contaminants from entering other sections of the building.

Weather conditions should be considered when planning installations. Professional practices as described in ACI standards 305R *Hot Weather Concreting* and 306R *Cold Weather Concreting* should be followed. Since the release agent is either a very finely ground powder or a liquid, wind conditions will severely affect their application.





Climatic conditions, experience in imprinted-concrete installation, and other factors will affect the size of the crew required. Smaller pours should be considered to allow adequate time for the imprinting procedure.

Reference points should be established and guidelines placed to serve as reference for pattern placement and to check alignment as installation proceeds. Walls are normally not used for aligning patterns. The pattern normally is started at the form line and is filled in at the wall by hand tooling with Pavecrafters filler tools or texturing tools. For most layouts, the corners of the forms must form exact right angles so that the pattern will not drift out-of-line as imprinting proceeds.

When adequate tools are available, installation becomes easier, faster, and more precise. Since imprinting normally proceeds in rows, a sufficient number of tools should be available to complete one row and begin placement of the next row before removing tools for reuse. Usually enough tools to form a row across the width of the installation plus two extra are supplied. The extras allow for replacements in case a tool is damaged during use.

Before the concrete is ordered, placing a trial layout over compacted, moist sand is recommended to reduce error. The position of each Pavecrafters tool should be marked by guidelines or by grease pencil on the forms for reference during imprinting.

■ Construction techniques, materials, and timing to produce the desired effect should be determined from the jobsite sample as described in section 8. *Jobsite Samples*. Equipment and materials as described in section 10. *Equipment and Materials* should be available and guidelines should be set. Dust masks, safety goggles, and gloves must be worn during imprinting.

Timing is critical since imprinting must be completed before the concrete hardens. The concrete must be plastic enough so that a sharp imprint can be produced but hardened enough to retain it. As a guide to determining when concrete is at the correct state of hardening, a finger pushed into the surface should leave a slight indentation. If the indentation keeps its shape, it is an indication that the concrete is at the proper stage to be imprinted and imprinting should start and proceed without delay.

If LITHOCHROME Antiquing Release is to be used, clean Pavecrafters tools should be preconditioned prior to use by coating them thoroughly with the antiquing release in the color specified. Excess antiquing release should be removed by shaking the tool gently or lightly brushing with a soft-bristle brush. The Scofield Tech-Data Bulletin *TD-1410 LITHOCHROME Antiquing Release* must be read completely before using.

If LITHOTEX Liquid Release or SCOFIELD Liquid Release SG is to be used, it should be sprayed in a fine misting spray evenly over the surface of the clean imprinting tool and the concrete surface. The appropriate Scofield Tech-Data Bulletin *TD-3611 LITHOTEX Liquid Release* or *TD-3612 SCOFIELD Liquid Release SG* must be read completely before using.

Imprinting installation is normally done in rows across the width of the area to be imprinted. Immediately prior to placing LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools, a layer of LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG should be applied over the section of color-hardened surface that will be covered by the first row of tools.

To prevent adhesion during imprinting, a complete and adequate layer of antiquing release or liquid release should exist between the concrete and the Pavecrafters tool. When using LITHOCHROME Antiquing Release sufficient material should be applied so that the sheen disappears from the surface of the concrete, but since texture detail may be diminished, the application of an excessive amount should be avoided.

When using LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools, predetermined guidelines and reference marks on the forms must be followed. The first row of LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools should be carefully positioned over the antiquing release or liquid release. Each successive Professional Grade Imprinting Tool or border tool should be placed tightly against the preceding tool, matching the alignment marks on the top of the tool and maintaining a straight pattern. After the first row is positioned, the concrete should be imprinted by applying pressure to the top of the tool. When the concrete is at optimum hardening for imprinting, a moderate amount of force is needed to form the imprint. Initially, stepping from one tool to the other should be sufficient to set the tools to the desired depth.

LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG should be applied along the length of the next row. The first tool in the row should be set before lifting a tool in the preceding row. Tools should be lifted in the same order as they were placed, aligning them in the following row with the two previously placed, adjacent tools. Preplaced guidelines and alignment marks on the top of the Pavecrafters tools should be used to maintain straight pattern rows. Imprinting should continue in the same manner for following rows. As the concrete hardens, greater force will be needed to achieve a uniform impression depth and tampers may be required.

Pavecrafters floppy and filler tools should be used to finish rows and fill in sections of the design where it is not convenient or possible to use rigid or border tools.

Regardless of which LITHOTEX Pavecrafters tools are used, the surface should be periodically inspected for damaged areas or areas where the imprinting depth requires correcting. Border tools or LITHOTEX Pavecrafters Professional Grade Imprinting Tools may be carefully replaced and the impression deepened by tamping, or floppy and filler tools may be used. Areas where the texture is torn or damaged should be repaired by use of Pavecrafters texturing tools. Hand chisels should be used, where needed, to deepen or create joint lines.

To prevent marring the texture of the pattern, tools should be periodically inspected and hardened concrete residue removed as described in section 13. *Tool Maintenance*.

■ LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG will not harm LITHOTEX Pavecrafters Professional Grade Imprinting Tools. LITHOCHROME Antiquing Release residue may be allowed to remain on the surface after excess material is removed by shaking or brushing with a soft-bristle brush. LITHOTEX Liquid Release or SCOFIELD Liquid Release SG will evaporate completely off the surface of the tools.

Prior to storage or when required to prevent color contamination, Pavecrafters tools should be cleaned of concrete residue, antiquing release residue if the product was used, and other foreign matter by scrubbing with a medium-stiff, nylon-bristle brush, warm water, and a suitable, high-quality liquid detergent. After rinsing, tools should be allowed to dry completely before storing as described in section 7. *Storage and Work Life*.

■ LITHOTEX Pavecrafters Professional Grade Imprinting Tools are marketed directly to the user from Scofield's Atlanta and Los Angeles warehouses as well as selected distributors nationwide. Not all textures and patterns are stocked. Contact Scofield's Customer Service Department for availability on patterns not in stock or to inquire about custom tools.



**LITHOTEX® Pavecrafters® TD-27.07**

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Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance in architectural concrete. Scofield Systems address specialized requirements for interior, exterior and vertical uses with compatible systems of complementary products including coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

■ Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR

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Solvent-based liquid release agents other than those produced by Scofield may cause LITHOTEX Pavecrafters Professional Grade Imprinting Tools to deteriorate over time and their use will void the warranty.




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## LITHOCHROME® Color Hardener

*A ready-to-use, dry-shake, colored or uncolored hardener for freshly placed concrete hardscapes or floors.*

TECH-DATA BULLETIN TD-1110.21 Rev. 11.21.2014

### 1. Product Description:

Formulated to be easily incorporated into the surface of freshly placed concrete, LITHOCHROME® Color Hardener produces exterior hardscapes or interior floors that are durable and abrasion resistant. Due to improved surface density, the color-hardened concrete is long-wearing and has improved resistance to the effects of freeze/thaw cycles and deicing salts. Horizontal concrete colored with LITHOCHROME Color Hardener requires minimal maintenance to remain attractive even in demanding environments. The permanent, high-opacity, uniform colors have been time-tested for over 80 years.

LITHOCHROME Color Hardener is available in a wide range of nonfading colors. Whites are available for light-reflective surfaces, and A-11 Concrete Gray, for use when an uncolored hardener is desired. The uniform, streak-free hues of LITHOCHROME Color Hardener provide color consistency, phase-to-phase and project-to-project. It cost-effectively provides superior coverage to produce attractive and durable surfaces suitable for vehicular traffic and high use pedestrian areas. LITHOCHROME Color Hardener may be used for ware house, industrial, or commercial interior concrete floors to protect the surface and reduce damage from wear.

Geometric patterning may be added to color-hardened hardscapes or floors by scoring or saw-cutting to define separate color areas. To match or blend with LITHOCHROME color-hardened hardscapes or floors, adjacent surfaces of freshly placed, vertical concrete, such as curbs and risers, may be plastered with a mix of LITHOCHROME Color Hardener and water.

LITHOCHROME Color Hardener may be applied by flash broadcasting onto the surface of freshly placed uncolored concrete or integrally colored concrete of a contrasting color to produce irregular color accents.

LITHOCHROME Color Hardener is preferred when imprinting concrete to produce the look of handset brick, tile, or aged stone. When used with LITHOTEX® Pavcrafters® imprinting tools, its rich finishing paste allows the production of sharp, clear, wear-resistant patterns. Color-hardened, antiqued surfaces that exhibit an attractive, timeworn, mottled patina are achieved by use of LITHOCHROME® Antiquing Release. When an antiqued appearance is not desired, LITHOTEX® Liquid Release or SCOFIELD® Liquid Release SG may be used to provide a colorless, bond-breaking barrier. Information about imprinting and antiquing concrete is available in Scofield's Tech-Data Bulletins TD-27 LITHOTEX Pavcrafters, TD-1410 LITHOCHROME Antiquing Release, TD-3611 LITHOTEX Liquid Release, or TD-3612 SCOFIELD Liquid Release SG.

### 2. Coverage:

Coverage requirements vary according to intended use and color. For residential applications, the minimum coverage rate is 50 pounds per 100 square feet (2.5 kg/m<sup>2</sup>). For commercial applications or when a lightly sandblasted finish is required, a minimum of 90 pounds per 100 square feet (4.5 kg/m<sup>2</sup>) is recommended. For heavy-duty applications, up to 120 pounds per 100 square feet (6.0 kg/m<sup>2</sup>) may be used.

Regardless of use, light colors and whites require minimum coverage rates of 90–120 pounds per 100 square feet (4.5–6.0 kg/m<sup>2</sup>). Scofield should be consulted for the

minimum coverage rates of specific custom colors.

Because of the difference in their relative densities, the above coverage rates result in approximately 75% greater thicknesses when using LITHOCHROME Color Hardener than if a metallic hardener were used at the same coverage rate.

LITHOCHROME Color Hardener may be plastered onto freshly placed vertical surfaces at the rate of approximately 80 pounds per 100 square feet (4.0 kg/m<sup>2</sup>).

### 3. Limitations:

Application must be at the coverage rates given in section 2 Coverage. If insufficient material is applied, the abrasion resistance of the cured, color-hardened surface will be reduced. If the cured surface is to be sandblasted, textured or polished, particular care must be taken to insure that adequate LITHOCHROME Color Hardener is used and consistent coverage obtained or portions of the underlying concrete substrate will be revealed during the sandblasting, texturing, or polishing process.

LITHOCHROME Color Hardener is not suitable for use over self-leveling, cementitious toppings. Though it may be mixed with water and plastered on the vertical faces of freshly placed concrete incidental to color-hardened flatwork, it is not intended for extensive use on vertical concrete surfaces.

All fine and coarse aggregates in the concrete substrate must be nonreactive. Fluosilicate-type chemical hardeners should not be used, since they leave a nonuniform, whitish residue.

### 4. Composition and Materials:

LITHOCHROME Color Hardener is a streak-free, powdered, cementitious material containing special, hard aggregates and is produced by a proprietary manufacturing and intergrinding process. Formulated as a high-opacity color-hardening material for the top surface of freshly placed concrete substrates, it is lime proof and has maximum resistance to the effects of sunlight (UV). For optimum surface hardening, LITHOCHROME Color Hardener contains aggregates selected for hardness and purity that are carefully graded through a wide particle-size range to produce dense, wear-resistant surfaces.

### 5. Application Standards:

The coloring materials in LITHOCHROME Color Hardener conform to ASTM C 979 Pigments for Integrally Colored Concrete in reference to color stability.

Professional concreting standards and practices, including those published by the American Concrete Institute (ACI) and the Portland Cement Association (PCA), should be followed. Referring to ACI 302.1R Guide for Concrete Floor and Slab Construction is recommended.

### 6. Colors:

LITHOCHROME Color Hardener is available in a variety of colors as depicted on Scofield's Color Charts A-112 LITHOCHROME Color Hardener and A-132 Color Selection Chart.

The colors shown on these Color Charts approximate the colors obtained when the color-hardened surface is cured with LITHOCHROME® Colorwax™ or COLORCURE® Concrete Sealer



# LITHOCHROME® Color Hardener TD-1110.21

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in the matching color. Use of other curing methods will alter the color of the surface, as will certain texturing methods such as sandblasting.

With sufficient prior notification, many custom colors, from light pastels to intense hues, can be formulated, including all colors shown on Scofield's Color Chart A-312 CHROMIX® *Admixtures for Color-Conditioned® Concrete*. Custom colors are manufactured per quotation. Contact your Scofield representative for availability and pricing.

## ■ 7. Textures and Slip Resistance:

Only uniformly slip-resistant concrete finishes, such as swirl, broomed, lightly sandblasted, or slip-resistant imprinted textures should be applied when the color hardener is installed. On flat interior floors adequate precautions must be taken to ensure that the surface is not slippery. A slip-resistant, flat-troweled finish is suggested.

For safety considerations, representative jobsite samples as described in section 11 *Jobsite Samples* must be produced prior to installation, and the entire surface inspected after completion to verify and approve the adequacy of wet and dry slip resistance.

## ■ 8. Packaging:

LITHOCHROME Color Hardener is available in easy opening 50-pound (22.7 kg) bags and pails. 10-pound (4.5 kg) pails are also available where smaller quantities are desired, as for use in flash broadcasting procedures.

## ■ 9. Storage and Shelf Life:

Under normal conditions and when kept dry and moisture free in unopened containers, the shelf life of LITHOCHROME Color Hardener when packaged in bags is 1 year from the date of manufacture. When packaged in plastic pails, the shelf life is 2 years from the date of manufacture. Storage must be under roof and off the floor. Inventory must be rotated to maintain product that is within shelf life limits.

## ■ 10. Cautions:

### WARNING!

**HARMFUL IF INHALED. IRRITATING TO EYES AND SKIN. MAY CAUSE DELAYED LUNG INJURY (SILICOSIS). DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. CONTAINS CEMENT AND SILICA (QUARTZ).** Cancer hazard. Contains Silica (Quartz) which can cause cancer. (Risk of cancer depends on duration and level of exposure.) Use only with adequate ventilation. Do not breathe dust. Wet cement may cause alkali burns. Avoid contact with eyes, skin, and clothing. Wear dust (particulate) respirator (NIOSH TC-84A approved), safety goggles, and gloves. Follow respirator manufacturer's directions for respirator use.

**First Aid:** Eyes—DO NOT RUB EYES. Immediately flush thoroughly with large amounts of water. Skin—Wash thoroughly with soap and water. Remove soiled clothing and wash before reuse. Inhalation—If inhaled, or if difficulty in breathing is experienced, move to fresh air. If symptoms persist or develop, or if ingested, get medical attention.

Wash thoroughly immediately after handling. Store in a cool, dry, well-ventilated area in unopened original packaging or in tightly closed, labeled containers. Avoid generating dust during recovery or disposal. Disposal of all residual or recovered product must be in accordance with applicable federal, state, and local regulations. Before using or handling, read the *Material Safety Data Sheet and Warranty*.

## ■ 11. Jobsite Samples:

Producing architectural concrete requires skill and practice. Timing, application and texturing techniques, imprinting patterns, experience in use of the material, antiquing, curing, sealing and other factors will affect the final appearance and performance of color-hardened hardscapes and floors. Representative jobsite samples must be produced and approved prior to installation.

Samples must be produced for each color and texture and be of adequate size to be representative. They should be produced by the same workers who will install the color-hardened flatwork using the contemplated job materials, construction tools, and techniques. All samples should be finished, textured or imprinted, cured, and if applicable antiqued and/or sealed as specified.

For safety considerations, the entire surface of the jobsite sample must be inspected after completion to verify and approve the adequacy of wet and dry slip resistance.

## ■ 12. Subgrade Preparation:

The subgrade should be well drained and have adequate and uniform load-bearing characteristics. To reduce cracking, it should be graded so that the thickness of the concrete will be uniform. At the time of concreting, it must be moist, completely consolidated, and free of frost. If necessary, the subgrade may be dampened with water in advance of concreting, but concrete should not be placed over freestanding water or over soft, muddy or frozen ground.

## ■ 13. Concrete Mix Design:

The concrete should contain a minimum of 5 1/2 sacks (517 lb) of cement per cubic yard (300 kg/m³) of concrete. All fine and coarse aggregates must be nonreactive (free of deleterious particles) and the water content should be the minimum amount practical.

The mix design must not permit segregation of components during pumping, placing or consolidation of the concrete. In the absence of a specific mix design, a 4-inch (100 mm) maximum slump is recommended.

A normal or retarded-set, water-reducing admixture may be used. An air-entraining admixture complying with ASTM C 260 *Air-Entraining Admixtures for Concrete* should be used when specified or required by the engineer for freeze/thaw durability, and finishing procedures should be adjusted or delayed to minimize formation of blisters. The concrete mix must not contain any admixture or additive that contains calcium chloride. During cold-weather concreting, a nonchloride accelerator may be used. No high-range water reducing admixtures (superplasticizers) should be added. Mixes containing high levels of fly ash as a cement replacement may be more difficult to incorporate the hardener into and to finish properly.

## ■ 14. Concrete Installation:

Prior to placing the concrete substrate, representative jobsite samples must be produced and approved as described in section 11 *Jobsite Samples*.

Surrounding areas, landscaping, and adjacent surfaces should be protected. The work area should be roped off, nearby vehicles removed, and appropriate sections closed to traffic. Prior to concrete installation the required number of bags or pails of color hardener should be distributed outside the formwork proportional to the area to be covered. Quantities for the first shake, second shake, and so on should be separated.

Weather conditions should be considered when planning installation. Professional practices as described in the ACI standards 305R *Hot Weather Concreting* and 306R *Cold Weather Concreting* should be followed. Climatic and other conditions will affect the size of the work crew required.



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Sufficient personnel should be scheduled.

When concrete is placed and finished in hot, windy weather, windbreaks may be needed. Precautions should be taken to prevent plastic shrinkage cracking resulting from excessively rapid drying at the surface as described in *CIP 5 Plastic Shrinkage Cracking* published by the National Ready Mixed Concrete Association.

The concrete mix should be controlled to provide good batch-to-batch uniformity, and the slump should be consistent throughout the project.

The concrete should be placed and spread so that it completely fills all space inside the forms, then consolidated by vibrating to provide a suitable surface for finishing. If tamping is used for consolidation it should be kept to a minimum, and concrete adjacent to the forms should be spaded.

Before the appearance of excess moisture or bleed water, the surface should be screeded to the finished grade specified by the architect, and wood-floated to the required flatness and levelness. Suggested tolerances are given in *ACI 302.1R Guide for Concrete Floor and Slab Construction*. Exterior concrete should be sloped adequately for proper drainage, normally a minimum of 1/4 inch per foot (2 cm/m). When the concrete is air-entrained, floating should be delayed to minimize stickiness.

Floating to embed the coarse aggregate and bring the mortar to the surface should be done with wood floats so that the surface remains open. Troweling closes the surface, making it more difficult to work the color hardener into the plastic concrete. It should be done only after the final color-hardener application.

**15. Application:**

Adjacent concrete surfaces should be protected by plastic sheeting during application and finishing of the color hardener. To ensure sufficient and uniform coverage, the color hardener should not be applied at less than the rate described in section 2 *Coverage*.

The color hardener should be applied after the concrete substrate has reached the point where the bleed water disappears and the floating process will not disrupt the level of the surface. Earlier application may reduce durability and require a higher coverage rate. Color hardener should never be used to dry bleed water remaining on the surface.

LITHOCHROME Color Hardener should be hand-broadcast uniformly across the surface of the plastic concrete by the dry-shake method. Wide areas may necessitate the use of a bridge. Mechanical spreaders are effective on larger installations. The color hardener should normally be applied in two separate broadcasting operations (shakes). Two-thirds of the material should be applied in the first shake with one-third being withheld for the second shake and final touch-up as necessary. For applications of over 100 pounds per 100 square feet (5.0 kg/m<sup>2</sup>), three shakes should be considered with one-half of the material being applied during the first shake.

To prevent segregation of the aggregates, the color hardener should not be broadcast from a point above knee level or thrown more than a few feet (1 m), less under windy conditions. For more uniform coverage, applications should be made at 90 degrees to each other when practical. Since concrete sets more rapidly along the edges of the slab, material should be applied to the edges first, and they should be worked before the rest of the surface. A small quantity of material should be withheld from the final shake for touching up nonuniform or weak-toned areas as necessary.

The necessary moisture for wetting the color hardener must come from the concrete substrate to develop the proper strength and monolithic bonding. Water must not be sprinkled or otherwise added to the surface during application. Otherwise, a discolored and weakened surface with reduced

durability may occur.

After each application, the dry color hardener must be thoroughly and completely worked into the surface by the use of wooden hand floats or a power troweling machine equipped with float blades (shoes). Long-handled fresnos must not be used. The concrete must not be troweled until after the final application.

After application of the final shake, the surface should be floated, then hand or machine troweled. To prevent burning or darkening of the surface, hard steel troweling (burnishing) should be minimized, especially at the edges and joint lines.

The specified texture should be applied uniformly using consistent finishing practices. All surfaces should be finished within reasonably the same time after placing.

On interior floors, final hand-troweling should be done in a consistent direction and uniformly so that it will not be slippery. A slip-resistant, flat-troweled finish is suggested.

If the color-hardened surface is to be imprinted with LITHOTEX Pavcrafters or other mat-type imprinting tools, LITHOCHROME Antiquing Release in the appropriate color or clear LITHOTEX Liquid Release or SCOFIELD Liquid Release SG should be used. If the color-hardened concrete is to be chemically stained after curing, LITHOCHROME® Chemstain® Classic or LITHOCHROME® Tintura® Stain should be used. The appropriate Scofield Tech-Data Bulletin TD-27 LITHOTEX Pavcrafters, TD-1410 LITHOCHROME Antiquing Release, TD-3611 LITHOTEX Liquid Release, TD-3612 SCOFIELD Liquid Release SG, TD-1320 LITHOCHROME Chemstain Classic, or TD-1840 LITHOCHROME Tintura Stain must be read completely before using.

When weakened-plane joints are to be saw-cut, the use of a dry-cut saw is suggested within the first few hours.

**16. Curing and Sealing:**

Until completely cured, the color of concrete is normally less uniform and appears darker than the final color. Use of LITHOCHROME Colorwax or COLORCURE Concrete Sealer, Scofield's color-matched curing materials, will properly cure color-hardened concrete, enhance the depth of color, improve color uniformity, and provide surface protection. If a colored curing material is not desired, SCOFIELD® Cureseal-W™ or SCOFIELD® Cureseal-S™ should be used. Scofield's curing materials have been specially formulated for use with colored concrete and conform to the moisture retention requirements of ASTM C 309 *Liquid Membrane-Forming Compounds for Curing Concrete*.

LITHOCHROME Colorwax in the matching color should be used to cure exterior flatwork that will be allowed to weather naturally or that will only receive occasional maintenance and recoating. Exterior flatwork that will receive regular maintenance and resealing and all interior floors should be cured with COLORCURE Concrete Sealer in the matching color or with clear SCOFIELD Cureseal-W or SCOFIELD Cureseal-S.

For curing freshly placed concrete, one coat of LITHOCHROME Colorwax, COLORCURE Concrete Sealer, SCOFIELD Cureseal-W or SCOFIELD Cureseal-S should be applied when the concrete is hard enough to be walked on gently without marring, surface moisture has evaporated, and no condensation can occur.

*ACI 302.1R Guide for Concrete Floor and Slab Construction* discusses curing colored concrete flatwork with special curing materials similar to Scofield's and recommends against the use of plastic sheeting, wet burlap, damp sand, curing paper, ponding, or other liquid-membrane curing compounds, since they are usually detrimental to color uniformity.

The curing surfaces should be protected from damage by other trades. The concrete must not be covered with plastic sheeting. If additional protection is absolutely required, the surfaces should remain uncovered for a minimum of 4 days, after which they may be covered with new and unwrinkled, nonstaining, reinforced kraft curing paper.





**LITHOCHROME® Color Hardener TD-1110.21**

Refer to [www.scofield.com](http://www.scofield.com) for the most recent Scofield Tech-Data Bulletins

If the surface is imprinted and antiqued, or if it is to be chemically stained, the color-hardened concrete should be cured with new and unwrinkled, nonstaining, reinforced kraft curing paper rather than a curing membrane. The curing paper should conform to ASTM C 171 *Sheet Materials for Curing Concrete*.

When curing with LITHOCHROME Colorwax, SCOFIELD Cureseal-W or SCOFIELD Cureseal-S, an additional thin finish coat may be applied over the initial cure coat if needed or desired. When curing with COLORCURE Concrete Sealer, one thin seal coat is required over the initial cure coat after the moisture content of the concrete is low enough so alkali and other salts do not become trapped beneath the sealer, normally 14–28 days after placement. To protect the appearance of chemically stained or antiqued and imprinted concrete that was cured with curing paper, the surface should be sealed with one of the following: SCOFIELD® Selectseal Plus™, SCOFIELD Cureseal-W, or SCOFIELD Cureseal-S. Where a lower-cost sealer is desired, the use of CEMENTONE® Clear Sealer may be considered. The appropriate Scofield Tech-Data Bulletin TD-1580 LITHOCHROME Colorwax, TD-1680 COLORCURE Concrete Sealer, TD-1645 SCOFIELD Selectseal Plus, TD-1623 SCOFIELD Cureseal-W, TD-1631/32 SCOFIELD Cureseal-S, or TD-4630 CEMENTONE Clear Sealer must be read completely before using.

All surfaces must be thoroughly inspected to verify and approve installation and safety, including wet and dry slip resistance, prior to opening the cured or sealed color-hardened surface to traffic.

**■ 17. Plastering Vertical Concrete Surfaces:**

To match or blend with color-hardened hardscapes or floors, the freshly placed vertical faces of curbs, risers, and planters may be plastered with LITHOCHROME Color Hardener at the rate of approximately 80 pounds per 100 square feet (4.0 kg/m²). The forms should be removed as soon as the concrete is self-supporting. The powdered color hardener should be mixed with clean water to a plaster consistency and immediately troweled onto the newly stripped surfaces. When a consistent appearance is desired, the plastered surfaces should be textured, cured, and sealed in the same manner as the adjacent flatwork.

**■ 18. Maintenance:**

For exterior concrete hardscapes cured with LITHOCHROME Colorwax, an occasional maintenance application may be made after the Colorwax coat has weathered or worn from the surface. For exterior or interior concrete hardscapes or floors cured and/or sealed with COLORCURE Concrete Sealer, SCOFIELD Cureseal-W, SCOFIELD Cureseal-S, or SCOFIELD Selectseal Plus, a maintenance application should be made periodically to protect the base sealer. Instructions for the maintenance and resealing or recoating of colored concrete surfaces are available in Scofield's Tech-Data Bulletins TD-1580 LITHOCHROME Colorwax, TD-1680 COLORCURE Concrete Sealer, TD-1623 SCOFIELD Cureseal-W, TD-1631/32 SCOFIELD Cureseal-S, and TD-1645 SCOFIELD Selectseal Plus.

Interior concrete floor surfaces colored with LITHOCHROME Color Hardener and cured or sealed with a recommended Scofield product should be protected with a compatible, slip-resistant, emulsion-type, commercial floor finish following the manufacturer's instructions and safety requirements.

**■ 19. Patching:**

Damaged areas in new or old, color-hardened concrete flatwork should be patched using LITHOCHROME Color Hardener in the matching color. The cause of the deterioration should be determined and corrected before patching so that the need for repairs will not recur.

Depth of the patch, patching techniques, tools used, texture applied, and curing method will affect the apparent color of the finished patch. If practical, patching procedures and

mixes should be tested before general patching. To reduce shrinkage cracking, patching should be done when the concrete is shaded in the cool of the day.

Successful patching depends on proper surface preparation. The patch should not be featheredged. To eliminate spalling of the edges or cracking of the surrounding concrete, the perimeter of the area to be patched should be saw-cut with a diamond or carbide saw blade. Undercutting slightly will more firmly hold the patch in place. Saw-cuts should not be allowed to overlap so that damage to the adjacent concrete is avoided.

All unsound or cracked concrete must be completely removed inside the saw-cuts to a minimum depth of 1 inch (25 mm) using a handheld hammer and chisel in small areas. A light- or medium-weight pneumatic chipping hammer fitted with a spade-shaped bit will facilitate removal in larger areas. Heavyweight air hammers and chisel-shaped bits should not be used as they may cause cracking in the surrounding concrete.

The depth of the cavity should be reasonably uniform to reduce cracking of the patch, and its surface texture should remain rough to improve bond. If any reinforcing steel is exposed the concrete should be removed from around and under the exposed bars to a minimum depth of 1 inch (25 mm). To prevent surface spalling of the concrete, all exposed steel should be completely encased in the patching mix so that moisture will not reach the metal, causing its corrosion and expansion.

Immediately prior to placing the patching mix, any loose particles, oil, dirt, and standing water must be removed from the cavity. The sides and bottom should be uniformly dampened, then coated with a high-quality bonding agent following the manufacturer's instructions and safety requirements.

One part LITHOCHROME Color Hardener in the matching color should be field mixed with one part properly graded pea gravel and enough water to produce a low-slump mix with a trowelable consistency. The mix should firmly fill the cavity to within approximately 1/16 inch (2 mm) of the top. Additional LITHOCHROME Color Hardener should then be broadcast over the surface and wood floated to the level of the surrounding concrete.

Freshly placed patches should be textured to match the adjacent concrete as closely as possible. To develop proper strength and color, the patch should be cured and if desired, sealed with LITHOCHROME Colorwax or COLORCURE Concrete Sealer in the matching color as described in section 16 *Curing and Sealing*. To blend the patch more closely with the surrounding concrete, the entire area may be cleaned and sealed with the same color-matched material if desired.

**■ 20. Availability:**

LITHOCHROME Color Hardener is marketed nationwide and internationally, directly to the user through strategically located warehouses, dealers, and representatives. Contact Scofield for its nearest representative.

Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance in architectural concrete. Scofield Systems address specialized requirements for interior, exterior and vertical uses with compatible systems of complementary products including coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools.

Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

See page 5 for Suggested Short Form Specifications.

L. M. Scofield Company customer service: 1 800 800 9900

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**LITHOCHROME® Color Hardener TD-1110.21**  
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■ **21. Limited Warranty:**

Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials.

SCOFIELD WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING FOR DELAYS OR LOST PROFITS. Communication of this warranty and its limitations to end users is not the responsibility of Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use and assumes all risks and liability in connection therewith.

***Suggested Short Form Specification for Color-Hardened Concrete:***

All concrete hardscapes, floors, and adjacent vertical surfaces designated in the plans or specifications as having a colored and hardened surface shall be color-hardened with LITHOCHROME® Color Hardener in accordance with Tech-Data Bulletin TD-1110, using \_\_\_\_\_ color and a minimum coverage rate of \_\_\_\_\_ pounds per 100 square feet. All color-hardened concrete shall be cured with LITHOCHROME® Colorwax™ in the matching color in accordance with Tech-Data Bulletin TD-580 (or cured and sealed with COLORCURE® Concrete Sealer in the matching color in accordance with Tech-Data Bulletin TD-1680). All products shall be manufactured by L. M. Scofield Company, (800) 800 9900, Los Angeles, CA, (323) 720 3000 and Atlanta, GA, (770) 920 6000.

***Suggested Short Form Specification for Antiqued, Imprinted Concrete:***

All concrete designated in the plans or specifications as having an antiqued-imprinted surface shall be color-hardened with LITHOCHROME® Color Hardener in accordance with Tech-Data Bulletin TD-1110, using \_\_\_\_\_ color and a minimum coverage rate of \_\_\_\_\_ pounds per 100 square feet. The color-hardened concrete shall be antiqued with LITHOCHROME® Antiquing Release in accordance with Tech-Data Bulletin TD-1410 using \_\_\_\_\_ color, or coated and imprinted using a mat-type tool such as LITHOTEX® Pavecrafters® in \_\_\_\_\_ pattern. All antiqued, imprinted concrete shall be sealed with SCOFIELD® Selectseal Plus™, SCOFIELD® Cureseal-W™, or SCOFIELD® Cureseal-S™ in accordance with Tech-Data Bulletin TD-1645, TD-1623, or TD-1631/32. All products shall be manufactured by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000 and Atlanta, GA, (770) 920-6000.



1 800 800 9900 or [www.scofield.com](http://www.scofield.com)

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■ L. M. Scofield Company customer service: 1 800 800 9900

Western Headquarters: 6533 Bandini Blvd., Los Angeles, CA 90040 voice: 323 720 3000 fax: 323 720 3030

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## LITHOCHROME® Antiquing Release

An odorless, high-performance, powder stamp tool release that adds decorative color accents while it improves the ability to separate stamp or texturing tools from uncured concrete or cementitious material.

TECH-DATA BULLETIN TD-1410.11 Rev. 11.21.2014

### 1. Product Description:

LITHOCHROME® Antiquing Release is an odorless, high-performance, colored, powder stamp tool release. Use it to improve the ease of separating concrete stamp tools, embossing skins, or texturing tools from the freshly placed concrete or cementitious materials they imprint. It adds variegated color to the imprint, and can increase the perceived depth of stamp patterns. Use when stamping ordinary or colored concrete flatwork, slabs treated with LITHOCHROME® Color Hardener, self-leveling floor mixtures, skim coats, or SCOFIELD® Texturetop® concrete topping.

Apply LITHOCHROME Antiquing Release to the entire surface to be textured immediately prior to stamping. Its hydrophobic nature will help prevent the wet cementitious material from sticking to the pattern tool, and improve imprint quality. Application of the release, along with the stamping procedure, should be done while the substrate is still wet, plastic, and movable. LITHOCHROME Antiquing Release is not a coating. It must be bonded to the surface with a performance topcoat or sealer. It can be used on interior and exterior surfaces.

LITHOCHROME Antiquing Release is not a concrete curing compound. When stamping is complete, concrete must still be properly cured using sheet curing materials or a concrete curing and sealing compound such as SCOFIELD® Cureseal-W®, or SCOFIELD® Cureseal-S®.

### 2. Colors:

Choose from a variety of colors found on Scofield's CHROMIX® Admixtures for Color-Conditioned® Concrete, and LITHOCHROME Color Hardener Color Selection Charts A-312 and A-132. All colors are lightfast, may be used in exterior applications, and conform to durability standards outlined in ASTM C979 "Pigments for Integrally Colored Concrete." Custom colors available with minimum orders.

### 3. Artistic Effects:

LITHOCHROME Antiquing Release can be used when stamping most cementitious materials. Use it to achieve the look of weathered natural stone, cobbled roads, brick walkways, or aged concrete. A variety of visual effects can be achieved through color selection, and the carefully controlled removal of the excess release material. Common practice is to use color(s) that are darker than the substrate to be stamped, along with a removal technique that allows the color to remain in the deeper portions of the imprint. This can enhance the effect of the pattern.

Preferred removal techniques include the use of soft brooms, vacuum powered brooms, power floor buffers, or auto-scrubbers that will not remove antiquing release from crevices and indented areas.

### 4. Coverage:

For most applications, a rate of 3-4 pounds per 100 square feet is desired (1.5-2.0 kg/10m²). Stamping speed, technique used, depth of imprint, and substrate composition will all impact the exact coverage needed. Enough material must be applied to create a dry boundary layer between the material to be stamped and the imprinting tool. Exact coverage should be determined in advance of large jobs as outlined in *Jobsite Test Sections*.

### 5. Limitations:

LITHOCHROME Antiquing Release is not a concrete curing compound or sealer. It is not a paint or coating. A suitable concrete sealer or coating such as SCOFIELD Cureseal-W, or SCOFIELD Cureseal-S, must be used to seal the material to the substrate. It is not a mold release for precast

concrete use, and should not be used as a "form release" or "Bond-Breaker." Cementitious mixtures with high water reducer content may limit release characteristics. LITHOCHROME Antiquing Release is a light fluffy powder that cannot be applied in windy conditions. Overly heavy application can cause loss of detail in subtle stamp or embossing patterns.

### 6. Application:

Antiquing Release application requires the 6 steps of **Broadcasting, Stamping, Standing, Excess Removal, Curing, and Sealing**. The careful timing of each step, and repeatedly using a single application technique, is important to develop consistent results. Application to younger more plastic concrete will embed more of the release into the surface and will result in more significant color effect. Stamping more fully cured concrete will embed less color. Timing will be influenced by temperature and humidity conditions. Always prove timing and technique as described in the *Jobsite Test Sections* portion of this document.

**Broadcasting:** Use a soft long-bristle masonry brush to apply antiquing release. Do this by first dipping the brush into the pail of LITHOCHROME Antiquing Release to load it with material. Next, broadcast the material across the surface by flicking or shaking the brush at knee level above the surface. Repeat to develop an even layer of material that completely covers all surfaces to be stamped. Broadcasting by hand will result in lumps of material across the surface and cause uneven results. Perform this Broadcasting step after all bleed water has been reabsorbed into the substrate, it is still plastic, can be moved with moderate finger pressure, and is still easily imprinted.

**Stamping:** Dust a small amount of LITHOCHROME Antiquing Release onto the stamp tool, mat, or skin, and immediately place the stamp tool onto the substrate already covered with the release powder. Apply pressure to the stamp as recommended by the tool manufacturer, and use any recommended impact devices to ensure a complete imprint is made. Remove the stamp according to tool manufacturer's instructions. If wet areas appear, re-dust the stamp tool and slab, carefully replace the tool back onto the surface in the original position, and re-stamp the surface.

**Standing:** Allow the antiqued and stamped substrate to stand undisturbed until it cures to a stage where it is walkable and not altered by the chosen excess removal technique.

**Excess Removal:** Remove excess antiquing release to achieve the desired artistic effect. This may be done with a broom, a vacuum, power tool scrubbing, or gentle power washing. Mild detergent solutions may be used. Take care to remove all loose powder that may interfere with subsequent sealer or coating adhesion.

**Curing:** The concrete should be allowed to properly cure. Select the appropriate curing method and material that is compatible with the finish coat that will be applied. If a sheet material is appropriate, only use new and unwrinkled, non-staining, reinforced kraft curing paper conforming to ASTM C 171 Sheet Materials for Curing Concrete. If a cure and seal product such as SCOFIELD Cureseal-W or SCOFIELD Cureseal-S is to be used, do not use sheet material.

**Sealing:** Seal the LITHOCHROME Antiquing Release to the concrete by using a performance sealer such as SCOFIELD® Selectseal Plus®, SCOFIELD Cureseal-W, SCOFIELD Cureseal-S, CEMENTONE® Clear Sealer, or high quality epoxy or urethane topcoat. Follow all coating application instructions.

### 7. Jobsite Test Sections and Samples:

Prior to general jobsite use, a representative Jobsite Test Section(s) or "Mock-Ups" must be produced and approved for each individual concrete color mix design, imprinting pattern, surface finish/texture, and

L. M. SCOFIELD COMPANY 11  
CONCRETE MATERIALS



**LITHOCHROME® Antiquing Release TD-1410.11**

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for each curing compound/sealer and coating combination that will be created. They must be of adequate size to be representative of the job, and utilize the same workers that will perform the final installation. For large stamp patterns utilizing multiple imprinting mats, a minimum of 100 square feet (10m<sup>2</sup>) is required. Careful attention should be paid to edge pattern terminations, and pattern rotation techniques.

Producing antiqued, imprinted concrete requires skill and practice. Timing, finishing, application and removal techniques, mix design, texture of the imprinted pattern, color combinations, weather, experience in use of the materials, sealing and other factors will significantly affect the final appearance of the surface. Construct the Jobsite Test Section in conditions as similar as possible to those expected during the larger installation. Follow all safety requirements and recommendations from all product manufactures.

When completed, use the Jobsite Test Sections to verify entire system suitability including frame/mold and foundation preparation methods, surface concrete specification compliance, finishing techniques, safety procedures, and achieved performance of the fully cured system. When applicable, test completed systems for wet and dry slip resistance. Evaluate polishing or coating application techniques, final color, and visual appearance. Do not proceed with products, techniques, or finishing systems that do not meet required specifications or meet with site owner approval.

**■ 8. Packaging:**

LITHOCHROME Antiquing Release is available in 5-pound (2.3 kg) and 25-pound (11.3 kg) pails.

**■ 9. Storage and Shelf Life:**

Stored below 140°F (50°C), the shelf life of LITHOCHROME Antiquing Release in unopened containers is 2 years from the date of manufacture.

**■ 10. Cautions:**

**WARNING! MAY IRRITATE EYES, SKIN. DO NOT TAKE INTERNALLY. DO NOT BREATHE IN DUST. KEEP OUT OF THE REACH OF CHILDREN.** Wear dust (particulate) respirator (NIOSH TC-84A approved), safety goggles, and gloves when working with this product.

**First Aid: Eyes—DO NOT RUB EYES. FLUSH IMMEDIATELY WITH WATER.** Hold eyelids apart while flushing material out thoroughly with large amounts of water. **Skin—**Wash thoroughly with soap and water. Remove soiled clothing and footwear and wash before reuse. **Inhalation—**Move to fresh air. If symptoms develop or if ingested, get medical attention.

Wash thoroughly immediately after handling. Close container after each use. In case of spillage, sweep or vacuum to collect material and dispose of in accordance with applicable regulations. Do not reuse empty container. Before using or handling, read the Material Safety Data Sheet and Warranty.

The VOC content is 0 g/L. (0 lb/gal)

**■ 11. Availability:**

LITHOCHROME Antiquing Release is marketed internationally through strategically located dealers, and representatives. Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance of architectural concrete. These include coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

**■ 12. Limited Warranty:**

L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality and within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials. SCOFIELD WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING FOR DELAYS OR LOST PROFITS. Communication of this warranty and its limitations to end users is not the responsibility of Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use, and assumes all risks and liability in connection therewith.

**ALL SCOFIELD PRODUCTS ARE INTENDED FOR PROFESSIONAL USE ONLY.**

***Suggested Short Form Specification for Antiqued, Imprinted Concrete:***

All concrete designated in the plans or specifications as having an antiqued-imprinted surface shall be color-hardened with LITHOCHROME® Color Hardener in accordance with Tech-Data Bulletin TD-1110, using \_\_\_\_\_ color and a minimum coverage rate of \_\_\_\_\_ pounds per 100 square feet. The color-hardened concrete shall be antiqued with LITHOCHROME® Antiquing Release in accordance with Tech-Data Bulletin A-854 using \_\_\_\_\_ color, or coated and imprinted using a mat-type tool such as LITHOTEX® Pavecrafters® in \_\_\_\_\_ pattern. All antiqued, imprinted concrete shall be sealed with SCOFIELD® Selectseal Plus®, SCOFIELD® Cureseal-W®, SCOFIELD® Cureseal-S®, or CEMENTONE® Clear Sealer in accordance with Tech-Data Bulletin TD-1645, TD-1623, TD-1631/32, or TD-4630.

All products shall be manufactured by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000 and Atlanta, GA, (770) 920-6000.



**SCOFIELD**

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■ **L. M. Scofield Company customer service:** 1 800 800 9900

**Western Headquarters:** 6533 Bandini Blvd., Los Angeles, CA 90040 **voice:** 323 720 3000 **fax:** 323 720 3030

**Eastern Headquarters:** 4155 Scofield Road, Douglasville, GA 30134 **voice:** 770 920 6000 **fax:** 770 920 6060

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## SCOFIELD® Cureseal-S™

A solvent-borne, clear curing compound for freshly placed colored or uncolored concrete flatwork and a durable sealer for protecting horizontal or vertical quarry tile, brick, block, stone, exposed-aggregate, or cementitious surfaces.

TECH-DATA BULLETIN B-604.03

### 1. Product Description:

SCOFIELD® Cureseal-S™ was developed for curing and sealing freshly placed colored or uncolored concrete and sealing new or existing, interior or exterior concrete flatwork or SCOFIELD® Texturetop® toppings where a clear matte or gloss finish is desired. It is also effective when used as a sealer over antiqued, imprinted, chemically stained, or exposed-aggregate concrete surfaces and as a finish sealer over quarry tile, brick, block, or stone. SCOFIELD Cureseal-S produces a clear finish that is resistant to blushing and will not yellow with age or exposure to ultraviolet light, providing significant protection against ultraviolet degradation of the substrate.

As a premium-quality concrete curing membrane, SCOFIELD Cureseal-S offers excellent curing properties and moisture retention. As a sealer, SCOFIELD Cureseal-S helps protect against staining from incidental contact with materials such as automotive oil, grease, and food spills. It produces a low-maintenance film that improves resistance to abrasion, freeze-thaw cycles, deicing salts, weather, ultraviolet (UV) radiation, and many chemicals. It is helpful in preventing concrete dusting and spalling. Surfaces sealed and protected with SCOFIELD Cureseal-S are easier to clean and maintain than unsealed concrete. It is used as a sealer on building walls, allowing stains from airborne pollutants such as soot and dirt to be washed away with water.

Commercial, industrial, and other interior floors may be cured and sealed with SCOFIELD Cureseal-S to protect the surface and facilitate cleanup. When applied as a sealer on existing floors or on floors topped with SCOFIELD Texturetop, SCOFIELD Cureseal-S serves as the basis for an ongoing floor maintenance program.

### 2. Coverage:

SCOFIELD Cureseal-S must be applied full strength without thinning by low pressure sprayer, airless sprayer, or long-nap roller or applicator. Thinning or reducing SCOFIELD Cureseal-S with a nonexempt solvent is unlawful and will void the performance warranty. The coverage will vary depending on the method of application and the porosity and texture of the surface.

For freshly placed concrete, one coat of SCOFIELD Cureseal-S Gloss is required for curing. An additional top-coat of SCOFIELD Cureseal-S Gloss or SCOFIELD Cureseal-S Matte is applied over the initial cure coat of SCOFIELD Cureseal-S Gloss 30 days after the concrete has been placed and cured.

For older concrete or over quarry tile, brick, block, stone, or SCOFIELD Texturetop, two coats of SCOFIELD Cureseal-S Gloss are required when a gloss finish is desired. When a matte finish is desired, SCOFIELD Cureseal-S Matte is applied as the second coat over the initial coat of SCOFIELD Cureseal-S Gloss.

For application by low pressure sprayer, airless sprayer, or long-nap roller or applicator, the recommended coverage rate per coat is 300–500 square feet per gallon (7–12 m<sup>2</sup>/L).

### 3. Limitations:

SCOFIELD Cureseal-S is not intended for sale or use in jurisdictions where air quality regulations require a Volatile Organic Compound content of less than 700 g/L (5.8 lb/gal) for the product categories covering this material. As of the date of this bulletin, areas where the sale and use of SCOFIELD Cureseal-S is not permitted include California, New Jersey, Delaware, New York City, and Maricopa County, Arizona. As regulations in various jurisdictions are subject to change, the user is cautioned to check with local authorities for applicable regulatory requirements in any particular area.

SCOFIELD Cureseal-S is available in two types, Gloss and Matte. SCOFIELD Cureseal-S Matte must not be used alone for curing or sealing. When curing freshly placed concrete and a matte finish is desired, a cure coat of SCOFIELD Cureseal-S Gloss is applied and allowed to cure for 30 days. A topcoat of SCOFIELD Cureseal-S Matte is then applied over the initial cure coat of SCOFIELD Cureseal-S Gloss. When sealing existing surfaces and a matte finish is desired, a prime coat of SCOFIELD Cureseal-S Gloss must be applied, followed by a topcoat of SCOFIELD Cureseal-S Matte. The topcoat can be applied as soon as the prime coat has dried sufficiently, normally 1–2 hours depending on temperature and humidity.

SCOFIELD Cureseal-S will not freeze and can be stored outside in cold weather. After exposure to freezing temperatures, SCOFIELD Cureseal-S must be allowed to warm up to approximately 40° F (4° C). Matte-finish material should be hand-stirred prior to use.

SCOFIELD Cureseal-S must only be used on concrete that is placed on a well-drained subgrade and is not subject to hydrostatic pressure. It is not intended for use as a waterproofing material on below-grade surfaces. Alkali or hard-water deposits may form on or under the sealer at edges, cracks, joints, depressions or other locations where water collects or enters the concrete substrate. Potted plants or other damp objects may leave deposits, stains, or discolorations if allowed to remain on the sealed concrete for an extended period of time. SCOFIELD Cureseal-S, like all clear sealers, will accentuate any nonuniformity in concrete color, texture, or finish.

Due to greater retention of moisture in the slab, SCOFIELD Cureseal-S should not be used to cure or seal concrete that contains reactive aggregates since the possibility of pop-outs will be increased.

### WARNING!

SCOFIELD Cureseal-S must only be used in thin coats on surfaces adequately textured for slip resistance. Unless the surface was previously sealed with SCOFIELD Cureseal-S, it must be porous to allow penetration. If applied improperly or too heavily, the surface may peel or become slippery, particularly on pool decks or other areas where water may remain on the surface.

### TEST SECTION

Prior to general application, a representative jobsite test section must be produced including casting, finishing, curing, sealing, or finish-coating as applicable to verify and approve suitability, proper surface preparation methods, adhesion, safety, performance, wet and dry slip resistance, application techniques, and coverage.



**SCOFIELD® Cureseal-S™ B-604.03**

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SCOFIELD Cureseal-S should not be used in areas subject to continuous water submersion or chemical exposure, concentrated abrasion and scratching, or metal-wheeled traffic. On areas subject to forklift traffic, the use of nonmarking tires is recommended to avoid unsightly black tire marks.

Most paints and adhesives for floor coverings are compatible when applied over SCOFIELD Cureseal-S, but testing is required with the particular materials in question to verify compatibility before their application.

SCOFIELD Cureseal-S must be applied at temperatures above 40° F (4° C). Application must not be made on surfaces previously treated with a water or stain repellent.

SCOFIELD Cureseal-S is a premium-quality curing and sealing formulation and, like all such products, will require periodic maintenance and reapplication. Spills should be removed promptly and floors cleaned regularly to minimize possible staining and damage to the sealer.

**4. Composition and Materials:**

SCOFIELD Cureseal-S is a blend of 100% methacrylate polymers and UV inhibitors in a fast drying aromatic solvent. No fillers are used and no oils, waxes, or saponifiable resins are contained in the mixture.

**5. Applicable Standards:**

SCOFIELD Cureseal-S Gloss and SCOFIELD Cureseal-S Matte comply with the following specifications: ASTM C 1315, Type 1, Class A, B, and C; AASHTO Des. M-148-82; Federal Specification TT-C-0800; ASTM C 309; and DE CRD-C-300.

A.I.M. Category: Curing and Sealing Compound, maximum VOC 700 g/L (5.8 lb/gal).

A.I.M. Definition: SCOFIELD Cureseal-S is a liquid membrane-forming compound marketed and sold solely for application to concrete surfaces to reduce the loss of water during the hardening process and to seal old and new concrete, providing resistance against alkalis, acids, and ultraviolet light, and provide adhesion promotion qualities. SCOFIELD Cureseal-S meets the requirements of the American Society for Testing and Materials (ASTM) Designation C 1315 *Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete*.

**6. Sizes:**

SCOFIELD Cureseal-S is available from stock in 1-gallon (3.8 L) and 5-gallon (18.9 L) pails and by special order in 55-gallon (208 L) drums.

**7. Storage and Shelf Life:**

When stored in the original unopened containers and protected from extreme heat, the shelf life of SCOFIELD Cureseal-S is at least 1 year from the date of purchase. Inventory must be rotated to maintain product that is within shelf life limits.

**8. Chemical Resistance and Staining:**

Chemical resistance may vary depending on the condition of the concrete substrate, curing techniques, surface preparation, method of application, the length of time the chemical remains on the surface, and other factors. When chemical protection is required or resistance to staining is important, a representative test application must be made on the jobsite substrate to determine if the sealer has suitable resistance. After the test application of SCOFIELD Cureseal-S has fully cured, a minimum of 14 days, the chemical in question should be applied and left on the surface for the maximum possible time it would remain under the expected conditions of service.

**9. Textures and Slip Resistance:**

Only uniformly slip-resistant concrete surfaces, such as broomed, swirl or sponge floated, sandblasted, acid-etched, exposed-aggregate, most imprinted-concrete, or concrete topped with SCOFIELD Texturotop toppings, should be considered for application of SCOFIELD Cureseal-S. Textures that are not slip resistant must be roughened by some texturing method such as acid etching, sandblasting, or machine scarifying. On flat interior floors extra precautions should be taken to ensure that the surface is not slippery.

For safety considerations, a representative test section must be prepared and sealed prior to general application and the entire surface inspected after completion to verify and approve the adequacy of wet and dry slip resistance.

**10. Cautions:**

**DANGER!**

**COMBUSTIBLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. CONTAINS PETROLEUM DISTILLATES. VAPOR HARMFUL. MAY AFFECT THE BRAIN OR CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE, OR NAUSEA. CAUSES EYE, SKIN, NOSE, AND THROAT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF SWALLOWED. DO NOT TAKE INTERNALLY.**

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. See MSDS for further information.

Keep away from heat, sparks, and flame. Vapors may cause flash fire. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent buildup of vapors by opening all windows and doors to achieve cross-ventilation. Use only with adequate ventilation. Do not breathe vapors or spray mists. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. **KEEP OUT OF THE REACH OF CHILDREN.**

**First Aid: Eyes**—In case of eye contact, flush immediately with large amounts of water for at least 15 minutes and get medical attention immediately. **Ingestion**—If swallowed, do not induce vomiting. Give conscious victim 1 to 2 glasses of water and get medical attention immediately. **Skin**—Wash thoroughly with soap and water. **Inhalation**—If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If symptoms persist or develop, get medical attention.

Keep container closed when not in use. If spilled, eliminate all sources of ignition. Contain spilled material and remove with inert absorbent using non-sparking tools. Dispose of contaminated absorbent, container, and unused contents in accordance with all applicable regulations. Do not reuse empty container. Before using or handling, read the *Material Safety Data Sheet and Warranty*.





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**11. Equipment for Preparation and Application:**

When using equipment and materials during preparation and installation, suitable protective gear must be worn and government regulations, manufacturer's instructions, and all applicable safety requirements must be followed.

Use of a pressure washer, a rotary floor machine, or a walk-behind scrubbing machine will facilitate surface preparation on cured concrete, quarry tile, brick, block, or stone floors. A low pressure sprayer, airless sprayer, roller, or long nap applicator are required for applying SCOFIELD Cureseal-S.

**WARNING!**

Any electrical equipment used with SCOFIELD Cureseal-S must be explosion proof or otherwise designed specifically for use with solvent-based products. Care must be taken to prevent sparks at electrical outlets or wherever solvent vapors may be present.

For preparation, the pressure washer must be equipped with a fan tip and have a minimum pressure capability of 2000 psi (14 MPa). Hot water capability may facilitate cleaning of existing concrete. Nonmarking hoses are helpful.

For preparation, the rotary floor machine must be heavy duty and operate at approximately 175 rpm. It may be equipped with brushes or with a pad driver that securely holds pads in place. A stiff-bristled bassine or nylon scrub brush is recommended. On flat interior floors, blue scrubbing or black stripping pads may be required. Walk-behind scrubbing machines should be considered for cleaning larger areas.

For general application, the low pressure sprayer must be of professional quality with a spray pressure of 30–40 psi (2.0–2.8 MPa). The sprayer must be equipped with fittings that will withstand strong aromatic solvents. Rubber fittings must not be used.

For general application, the airless sprayer must be of professional quality with a variable output fluid pressure of 1500–2500 psi (10–17 MPa). The sprayer must be equipped with a fan tip of 0.013–0.018 inches (0.33–0.46 mm) and with fittings that will withstand strong aromatic solvents. Rubber fittings must not be used.

For application by roller, the roller must be long-napped with a recommended pile depth of 1 1/4 inch (32 mm), of professional quality, and a suitable size. An adequate supply of refill rollers should be available so they may be changed whenever necessary.

For application, the long-nap applicator must be of professional quality, of a suitable size, and in good condition to ensure even coverage.

**12. Preparation for Sealing:**

During cleaning and stripping procedures, all surrounding areas should be closed to traffic, roped off, and protected. Testing should be performed to verify that the cleaning or stripping methods and materials will not damage the concrete.

To reduce hard-water and alkali deposits, sprinklers and fountains should be adjusted to avoid wetting of the surface. In hard-water areas, soft water should be considered for use in water features. Construction joints should be sealed with a high-quality joint sealant.

All washed or wet areas must be allowed to dry thoroughly before application of SCOFIELD Cureseal-S or moisture may be trapped under the sealer, causing a white haze to develop.

Newly placed concrete cured with SCOFIELD Cureseal-S Gloss should receive an additional seal coat of SCOFIELD Cureseal-S Gloss when a gloss finish is desired. When a matte finish is desired, SCOFIELD Cureseal-S Matte is applied as the seal coat over the initial cure coat of SCOFIELD Cureseal-S Gloss. The seal coat should be applied 30 days after the concrete has been placed and cured.

Immediately prior to applying the seal coat, the concrete must be thoroughly cleaned by sweeping or vacuuming. Significantly stained, mottled, or damaged sections should be stripped. Mottled areas may also require acid washing after stripping to remove alkali deposits. These may form under the cure coat when application is made to concrete that contained excessive water when placed or where there was an unusual subsurface moisture condition. Additional preparation methods are described below and in section 15, *Maintenance and Removal*. The surface must be rinsed after cleaning until the rinse water is completely clean. After drying, the surface should be inspected closely, and additional general or spot cleaning and rinsing should be performed if necessary.

After the surface is completely dry, wear paths, scratches, scrapes, and other areas where the cure coat has been removed by wear or cleaning should be spot-sealed using a fine-bristle brush or airless sprayer to apply and feather the sealer into the surrounding unmarred surface. All spot-sealed or resealed sections should be allowed to dry thoroughly before application of the seal coat.

Existing concrete, quarry tile, brick, block, or stone must have a uniformly slip-resistant surface. Textures that are not slip resistant must be roughened by some texturing method as described in section 9, *Textures and Slip Resistance*. Concrete previously sealed with SCOFIELD Cureseal-S should be prepared as described in section 15, *Maintenance and Removal*.

Before sealing concrete surfaces that have not been previously sealed with SCOFIELD Cureseal-S, all dirt, oil, grease, previously applied curing compounds, sealers, and coatings must be completely removed. Failure to remove all contaminants and coatings that impede the penetration of SCOFIELD Cureseal-S into the concrete will cause appearance defects, adhesion loss or peeling, and reduced durability.

Concrete not previously cured or sealed with SCOFIELD Cureseal-S must be cleaned completely so that the surface is penetrable. An indication of whether the concrete is penetrable can be obtained by spotting the surface with water. The water should immediately darken the substrate and be readily absorbed. If the water beads and does not penetrate or only penetrates in some areas, additional surface preparation and testing must be performed.

The cleaning method to be used depends on the surface finish and the condition of the concrete. Detergents, paint removers, or other commercial cleaners should be considered and tested. Pressure washing or scrubbing with a rotary floor machine is normally required. Any dirt or other material remaining will show through the clear sealer.

After cleaning, the surface must be rinsed to remove any remaining residue. Rinsing should continue until the rinse water is completely clean. Wet vacuums may be helpful to remove dirty water, particularly from interior floors. After drying, the surface must be carefully inspected and retested for penetrability. Additional general or spot cleaning and rinsing should be performed if necessary. All washed or wet areas must be allowed to dry completely before application of SCOFIELD Cureseal-S.

Acid washing may be required when the above surface preparation does not yield adequate penetration or if there are excessive alkali deposits or surface discoloration. Acid washing may also be beneficial to clean and brighten exposed-aggregate finishes. Since acid washing may affect the appearance or uniformity of the color, a representative area should first be tested. After preparation as described above, the surface should be acid washed using a solution of one part muriatic acid (20° Baume or 31.4% hydrochloric acid) to 20 parts water. Proper protective gear as recommended by the acid supplier must be worn. The reacted residue must be scrubbed using a low-speed floor machine equipped with a black pad and then thoroughly rinsed until the rinse water is clear and free of solids, a minimum of two times. After rinsing, neutralize the surface by washing with a solution of baking soda (sodium bicarbonate) and water, using 1 pound of baking soda per 5 gallons of water (454 g/19 L).





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Apply the solution until it stops fizzing. After neutralization, the surface must be rinsed thoroughly with clean water several times to remove soluble salts. Rinsing must continue until the rinse water is clean. Rinse water must be removed with a wet vacuum; rinse water left on the surface to evaporate may cause efflorescence. After rinsing is complete, a pH test must be performed using pH paper, litmus paper or a properly calibrated surface pH meter. A pH value of 7 or higher indicates that all acid has been neutralized. If the tested pH value is below 7 the neutralization step outlined above must be repeated until a pH value of 7 or more is obtained. After drying, the surface must be retested for penetrability as described above. Additional acid washing and rinsing must be performed if necessary. All washed or wet areas must be allowed to dry thoroughly before application of SCOFIELD Cureseal-S.

All applicable federal, state, and local safety, disposal, and other regulations, including OSHA, must be followed.

Particular care must be taken to completely remove any release agent that may have been applied. The presence of most release agents will adversely affect the physical properties of SCOFIELD Cureseal-S and cause adhesion loss between the sealer and the concrete.

**Exterior flatwork or interior floors topped with SCOFIELD Texturetop** must be sufficiently cured to walk on without damage prior to sealing, at least 16–24 hours after installation at 70° F (21° C) and 50% relative humidity. Dust, slurry residue, or other contaminants must be removed from the Texturetop surface by light pressure washing. All washed or wet areas must be allowed to dry completely before SCOFIELD Cureseal-S is applied. Do not use aggressive removal methods before the topping has adequately hardened, a minimum of 14 days after installation.

**13. Application as a Curing Membrane and Sealer:**

Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact. The work area should be roped off, nearby vehicles removed, and appropriate sections closed to traffic. All open flames, pilot lights, sparking equipment, or any other source of ignition must be extinguished or removed. The surface should be divided into work sections using walls, joint lines, or other stationary features as natural stopping points. This allows for easier control of coverage, wet edge, and overlap.

The concrete must be uniformly and adequately textured for slip resistance as described in section 9. *Textures and Slip Resistance*. Application must be made at the coverage rate recommended in section 2. *Coverage* using the equipment described in section 11. *Equipment for Preparation and Application*.

SCOFIELD Cureseal-S Gloss requires no mixing or dilution and must be applied full strength (unthinned). Prior to use, SCOFIELD Cureseal-S Matte must be hand-stirred until a uniform consistency has been reached, then applied full strength (unthinned).

The curing membrane must be applied uniformly as soon as the surface of the concrete has sufficiently set so it can be walked on gently without marring, the surface moisture has evaporated, and no condensation or sweating can occur. During application, all surfaces must be in approximately the same state of hardening.

During cold, foggy, or damp weather or periods of significantly falling temperatures, the concrete may sweat or condensation may form on the surface, thereby preventing the curing membrane from drying and adhering properly. Application of the membrane should be made after condensation ceases, and when temperatures will not fall below 40° F (4° C). When interior heat is required, air heaters that do not have open flames or other sources of ignition and that vent exhaust flue gases to the outside should be used to avoid concrete carbonation resulting from carbon dioxide buildup. Salamanders should not be used. Temperatures and humidity should be moderate and consistently maintained.

After application is finished, tools should be cleaned with an aromatic solvent following the solvent manufacturer's instructions and safety requirements. For sprayers, pump the solvent through the spray equipment to remove the residue. The curing surfaces should not be walked on for at least 2 hours after application. Freshly placed concrete should not be covered with plastic sheets or waterproof paper. If additional protection is absolutely required, the curing surfaces should remain uncovered for a minimum of 4 days, after which time new and unwrinkled, nonstaining, reinforced, kraft curing paper which conforms to ASTM C 171 *Sheet Materials for Curing Concrete* may be used. The use of plastic sheeting for protection is never recommended. When protection from plastering is required, the kraft paper should be removed at the end of each day, the concrete cleaned of all plaster and plaster-water residue, and the paper reinstalled the next morning if necessary.

In most applications the use of one coat of SCOFIELD Cureseal-S Gloss as a curing membrane is satisfactory. An additional application of SCOFIELD Cureseal-S Gloss is applied 30 days after the concrete has been placed and cured when a gloss finish is desired. When a matte finish is desired, use SCOFIELD Cureseal-S Matte for the additional seal coat. For a more even application, the seal coat should be applied at 90 degrees to the direction of the cure coat.

**14. Application as a Sealer:**

If an older concrete slab is to be protected with SCOFIELD Cureseal-S or an additional seal coat is to be applied to newly placed concrete cured with SCOFIELD Cureseal-S, all surfaces must be properly prepared as described in section 12. *Preparation for Sealing*.

One spray coat of SCOFIELD Cureseal-S Gloss, backrolled, is usually sufficient on new concrete previously cured with SCOFIELD Cureseal-S Gloss. Use SCOFIELD Cureseal-S Matte as the seal coat when a matte finish is desired. Two coats of SCOFIELD Cureseal-S Gloss should be used for sealing existing concrete, quarry tile, brick, block, stone, exposed aggregate, or SCOFIELD Texturetop surfaces when a gloss finish is desired. When a matte finish is desired, a prime coat of SCOFIELD Cureseal-S Gloss must be applied, followed by a topcoat of SCOFIELD Cureseal-S Matte. The topcoat can be applied as soon as the prime coat has dried sufficiently, normally 1–2 hours depending on temperature and humidity.

Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact. The work area should be roped off, nearby vehicles removed, and appropriate sections closed to traffic. All open flames, pilot lights, sparking equipment, or any other source of ignition must be extinguished or removed. The surface should be divided into work sections using walls, joint lines, or other stationary features as natural stopping points. This allows for easier control of coverage, wet edge, and overlap.

All washed or wet areas should must be allowed to dry thoroughly before the application of SCOFIELD Cureseal-S or moisture may be trapped under the sealer, causing a white haze to develop. Applying an additional coat of SCOFIELD Cureseal-S over the whitened areas will dissolve the sealer, allowing the moisture to escape. The sealer will then reharder clear.

SCOFIELD Cureseal-S Gloss requires no mixing or dilution and must be applied full strength (unthinned). Prior to use, SCOFIELD Cureseal-S Matte must be hand-stirred until a uniform consistency has been reached, then applied full strength (unthinned). Application must be made at the coverage rate recommended in section 2. *Coverage* using the equipment described in section 11. *Equipment for Preparation and Application*.



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When an airless sprayer is used, the sealer must be applied uniformly in a fine, fog pattern forming a thin continuous film. When a long-napped roller or applicator is used, the sealer must be spread as thinly and evenly as possible. Curbs, risers, or walls are easily spray or roller coated. A wet edge should be maintained, and overlap controlled. SCOFIELD Cureseal-S should not be overapplied or allowed to puddle or collect in joint indentations. A brush or rag should be kept available to brush out or mop up excess material.

The sealer should be applied on a calm day when concrete and air temperatures are between 50 and 90° F (10–32° C) and will not fall below 40° F (4° C). The surface must be dry and not subject to moisture that may interfere with the sealer drying properly. Application should not be made during rainy, foggy, or very humid weather when water condensation forms on the surface. On hot, dry days, application should be made during the cooler part of the day and when the concrete is in the shade.

The second seal coat may be applied after the first coat has dried sufficiently, normally 1–2 hours after application of the first coat depending on temperature and humidity. If a matte finish is desired, SCOFIELD Cureseal-S Matte must be applied as the second coat over the initial coat of SCOFIELD Cureseal-S Gloss. For a more even application, the second coat should be applied at 90 degrees to the direction of the first coat.

After application is finished, tools should be cleaned with an aromatic solvent following the solvent manufacturer's instructions and safety requirements. SCOFIELD Cureseal-S must be allowed to dry completely, normally 8–24 hours, before it is subjected to temperatures below 40° F (4° C) or to water from any source, such as hoses, sprinklers, condensation, or rain.

Sealed surfaces will be tack-free after approximately 1 hour at a temperature of 70° F (21° C) and 50% relative humidity. Under these conditions, the area may be walked on gently after a minimum of 2 hours.

After the sealer is completely dry, the area may be opened to light use after a minimum of 8 hours and to general use after a minimum of 24 hours. Longer drying times are helpful and will be necessary if temperatures are lower or the humidity is higher. The full performance capabilities of SCOFIELD Cureseal-S develop within approximately 24 hours after application at 70° F (21° C) and 50% relative humidity.

To avoid staining, the sealed surfaces should be protected from damage by other trades until they are fully cured. Heavy objects dropped or dragged will abrade the surface of the sealer.

All sealed surfaces should be thoroughly inspected to verify and approve installation and safety, including wet and dry slip resistance, before the area is opened to traffic.

**15. Maintenance and Removal:**

All maintenance and removal methods should be tested, and all surrounding areas should be closed to traffic, roped off, and protected.

For maintenance, sealed interior surfaces should be top-coated with a sacrificial floor finish to protect and maintain the original appearance and extend the period between reapplications of SCOFIELD Cureseal-S. After the final SCOFIELD Cureseal-S application has been allowed to dry a minimum of 72 hours, a compatible, slip-resistant, emulsion-type, commercial floor finish should be used following the manufacturer's instructions and safety requirements.

A maintenance application of SCOFIELD Cureseal-S should be made periodically as the sealer is worn off the surface. The need for maintenance applications will be accelerated in areas of heavy use or that receive frequent or aggressive cleaning. It is not necessary to strip the previously applied

SCOFIELD Cureseal-S unless film buildup is heavy or the surface cannot be cleaned sufficiently. Previously applied floor finish should be completely removed following the manufacturer's instructions and safety requirements. All dirt and contaminants must be completely removed from the surface of the sealer, and the surface thoroughly rinsed and allowed to dry. Wear paths, scratches, scrapes, and other areas where the sealer has been removed by wear or cleaning should be spot-sealed with SCOFIELD Cureseal-S, using a fine-bristle brush or airless sprayer and feathering the sealer into the surrounding surface. After the spot-sealed areas are completely dry, SCOFIELD Cureseal-S may be reapplied and slip resistance verified following the instructions in section 14, *Application as a Sealer*. Care must be taken so that excessive buildup of the sealer does not occur, thereby reducing durability and slip resistance.

When complete removal of SCOFIELD Cureseal-S is necessary, commercial coating removers or strippers should be tested and evaluated for safety and effectiveness following the manufacturer's instructions and safety requirements.

**16. Availability:**

SCOFIELD Cureseal-S is marketed nationwide and internationally, directly to the user and through strategically located warehouses, dealers, and representatives. Contact Scofield for its nearest representative.

Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance in architectural concrete. Scofield Systems address specialized requirements for interior, exterior and vertical uses with compatible systems of complementary products including coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

**17. Warranty Summary:**

For the complete warranty statement and important limitations, read the *Material Safety Data Sheet and Warranty*. Generally, Scofield represents and warrants only that its products are of consistent quality. No other oral or written statement is authorized. Any liability is limited to refund or replacement of defective product. The end user shall determine product's suitability and assume all risks and liability.

See page 6 for Suggested Short Form Specifications.

L. M. Scofield Company customer service: 1 800 800 9900

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***Suggested Short Form Specification for Curing and Sealing Concrete Flatwork:***

All concrete flatwork designated as being cured and sealed in the plans and specifications shall be cured and sealed with SCOFIELD® Cureseal-S™ Gloss (*optional*: and top-coated with SCOFIELD® Cureseal-S™ Matte) manufactured by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000, and Atlanta, GA, (770) 920-6000. SCOFIELD® Cureseal-S™ Gloss (*optional*: and SCOFIELD® Cureseal-S™ Matte) shall be applied full strength in accordance with Scofield's Tech-Data Bulletin B-604.



1 800 800 9900 or [www.scofield.com](http://www.scofield.com)

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■ L. M. Scofield Company customer service: 1 800 800 9900

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## LITHOTEX® Pavecrafters® PROFESSIONAL GRADE IMPRINTING TOOLS

A system of mat-type imprinting tools for texturing freshly placed architectural concrete and SCOFIELD® Texturetop® Stamp Grade System toppings.

### TECH-DATA BULLETIN T-404.06

#### 1. Product Description:

LITHOTEX® Pavecrafters® Professional Grade Imprinting Tools are a system of matched tools used to transform the surface of freshly placed architectural concrete flatwork and SCOFIELD Texturetop Stamp Grade System toppings into patterns that mimic other building materials. By combining the structural strength and wear resistance of concrete with the look of other paving materials, they create natural appearing, low-maintenance, textured surfaces in a wide variety of imprinted patterns.

#### 2. Limitations:

For best results LITHOTEX Pavecrafters Professional Grade Imprinting Tools should be used to texture plastic concrete color-hardened with LITHOCHROME® Color Hardener or EMERCHROME® Floor Hardener or to imprint SCOFIELD Texturetop Stamp Grade System cementitious toppings.

Producing imprinted architectural concrete requires skill and practice. Choice of imprinting pattern, layout and joint placement, concrete mix design and installation, experience in use of the materials, choice and color of coloring agent(s), color-hardener coverage and application procedures, weather, imprinting texture and techniques, choice and color of bond-breaking materials, use of chemical stains and color combinations, curing, antiquing-release removal techniques, sealing materials, and other factors will each affect the final performance and appearance of the imprinted concrete.

A texture should be chosen that will provide adequate slip resistance for the area's intended use. Layouts should be carefully planned and thoroughly checked. Representative jobsite samples must be produced and approved as described in section 8. *Jobsite Samples* prior to concrete installation.

Variations in color and texture should be expected and are normally desired, since they increase the natural appearance of the surface.

The use of a bond-breaking agent is required so that tools will not stick to the surface of the plastic concrete, tearing it when the Pavecrafters tool is lifted. The use of LITHOCHROME® Antiquing Release, LITHOTEX® Liquid Release, or SCOFIELD® Liquid Release SG is recommended. Solvent-based liquid release agents other than those produced by Scofield may cause LITHOTEX Pavecrafters Professional Grade Imprinting Tools to deteriorate over time and their use will void the warranty.

When using LITHOCHROME Antiquing Release, enough material must be applied so that moisture does not migrate to the surface, causing the texturing tool to stick. However, avoid application of an excessive amount or texture detail may be diminished.

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are designed for imprinting plastic architectural concrete flatwork and, though they may be used on the surface of freshly stripped and plastered vertical concrete, such as risers, they are not intended for extended use on vertical surfaces.

For a longer work life, LITHOTEX Pavecrafters Professional Grade Imprinting Tools should be used on concrete that is in the proper stage of plasticity and after each use, should be cleaned and stored as described in section 13. *Tool Maintenance* and section 7. *Storage and Work Life*.

#### 3. Tool Descriptions:

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are the primary tools in a system designed for ease of use and the highest productivity. When used in conjunction with companion accessory tools, they form a complete set of texture-matched tools, allowing design placement under a variety of job conditions.

**LITHOTEX Pavecrafters Professional Grade Imprinting Tools** are used to produce the main pattern. Single-design tools may produce the entire pattern, or several different tools may be required, each forming a variation of the pattern. Depending on the design, Professional Grade Imprinting Tools may be used to form repeat patterns or rotated or staggered to vary the design. LITHOTEX Pavecrafters Professional Grade Imprinting Tools provide a rigid working surface, are equipped with handles for ease of placing, and normally include grout or joint lines. Irregularly shaped tools are designed with markings on the top of the tool to aid in pattern alignment.

**Border tools** are used to form borders around or bands through the design, and may complement or contrast with the texture and pattern of the Professional Grade Imprinting Tool. They are equipped with handles and normally include grout or joint lines.

**Floppy tools** are used to complete sections of a design in areas where a more pliable tool is required. They are extremely flexible and are matched in texture, pattern, and size to the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools.

**Filler tools** are used to fill in small sections of the design, such as a single masonry unit or a corner. They normally include grout or joint lines and are matched to the texture and pattern of the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools.

**Texturing tools** are designed for applying surface texture only, without grout or joint lines. They are primarily used in hard-to-reach areas, for touching up damaged surface sections, and to texture adjacent vertical surfaces such as risers and retaining or planter walls. Matching the texture of the LITHOTEX Pavecrafters Professional Grade Imprinting Tools and border tools, they are very flexible with a maximum size of 1 square foot (305 mm<sup>2</sup>).

#### 4. Textures and Patterns:

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are available in a wide variety of textures and patterns. For many individual patterns, a pattern detail sheet is available which shows tool dimensions, the completed pattern, and information about companion tools and products. Please contact Scofield for available patterns and to request specific pattern detail sheets.

#### 5. Sizes:

The length and width of individual Pavecrafters tools varies depending on the type of tool and the pattern. Tool dimensions are shown on the Scofield *Pattern Detail Sheet* for many patterns and are given on the *LITHOTEX Pavecrafters Professional Grade Imprinting Tools Price List*.

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CONCRETE MATERIALS

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**6. Custom Tools:**

Pavecrafters tools in custom textures, patterns, and sizes can be manufactured to meet individual design requirements. Custom tools can be created from samples, or from drawings showing accurate dimensions, elevations, and cross sections. Custom tools require the creation of a new master and a charge for designing the master will be incurred. Contact Scofield about the manufacture of specific custom tools.

**7. Storage and Work Life:**

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are factory-packed so that they remain flat during transportation. To prevent deformation during storage and between uses, Pavecrafters tools must be stored flat, textured face up, with no objects resting on top. Storage should be under roof in a cool, clean area out of direct sunlight (UV) and away from excessive heat. All surfaces should be kept clean and covered. Covering with opaque plastic sheeting or tarpaulins is recommended. Work life depends on the amount of use, care taken of the tool during use, tool maintenance, and storage conditions.

**8. Jobsite Samples:**

Prior to concrete placement, a sample slab, and if included in the design, vertical surfaces such as risers and retaining walls, must be produced and approved for each pattern and layout specified. Samples must be of representative size, a minimum of 100 square feet (10 m<sup>2</sup>), so that the color combinations, pattern layout, installation techniques, and timing can be confirmed and approved. All procedures should be performed by the same workers that will produce the project imprinted concrete, using the same techniques, materials, Pavecrafters tools, and other required tools or equipment.

Producing imprinted architectural concrete requires skill and practice. Jobsite samples allow selected colors, materials, tools, and construction techniques to be evaluated and approved, or adjusted when needed. Jobsite samples are especially important when the imprinted surface is antiqued or is to be chemically stained later.

For safety considerations, the entire surface of the jobsite sample must be inspected after completion to verify and approve the adequacy of wet and dry slip resistance.

**9. Layout Considerations:**

Since the size of each Pavecrafters tool will vary depending on the texture and pattern, the layout should be determined in advance for each area to be imprinted. Area dimensions and tool placement should be planned to produce an optimum appearance from the specified pattern.

Areas to be imprinted must be designed so that their dimensions are in multiples of those of the imprinting tools plus approximately 1/16 inch (2 mm) per tool to allow for movement during imprinting. Since variations occur in straightness, pattern placement should not directly follow walls, but start at the form lines.

Imprinting installations normally follow straight lines, even when the substrate concrete does not, as often happens when imprinting curved walks and drives. When possible, place patterns to avoid looking down long grout or joint lines, making minor straight-line placement errors more noticeable. The best appearance will be obtained if long grout or joint lines are at an angle to the primary line of sight.

Elements that break or interfere with the pattern such as columns, walls, steps, planters, and drains should be considered and their placement or the pattern placement planned so that natural stopping points are formed. When possible, construction joints should be placed so that they are masked in the pattern, usually along pattern grout lines or boundaries.

Predetermined measuring points should be included in the plans or drawings for use in the initial alignment of the pattern and to check alignment accuracy as imprinting proceeds.

**10. Equipment and Materials:**

When using equipment and materials during preparation and installation, suitable protective gear must be worn and government regulations, manufacturer's instructions, and all applicable safety requirements must be followed.

Depending on the pattern and layout, hand tools such as chisels for hand-placing joint and grout lines or brick-mason jointers for dressing joints may be required. All equipment and materials considered for use should be tested for suitability and appearance as described in section 8. *Jobsite Samples*.

The concrete coloring material for freshly placed concrete should be LITHOCHROME Color Hardener. It allows the production of sharp, clear, wear-resistant textures, and creates durable, dense and easy-to-maintain imprinted surfaces with excellent color intensity. EMERCHROME Floor Hardener is recommended for imprinted concrete when a heavy-duty surface is required in heavy traffic areas. Concrete integrally colored with CHROMIX® Admixtures for Color-Conditioned® Concrete can also be imprinted. When resurfacing and imprinting or texturing existing concrete surfaces, SCOFIELD Texturotop Stamp Grade System colored cementitious toppings should be used. SCOFIELD Texturotop Stamp Grade effectively performs at depths from 1/8 inch (3 mm) to 3/8 inch (10 mm), and can be imprinted with LITHOTEX Pavecrafters Professional Grade Imprinting Tools that have a profile depth that is half or less of the application thickness. Additional information is available in Scofield's Tech-Data Bulletins A-104 LITHOCHROME Color Hardener, A-204 EMERCHROME Floor Hardener, A-304 CHROMIX Admixtures for Color-Conditioned Concrete, or C-734 SCOFIELD Texturotop Stamp Grade System. The appropriate Tech-Data Bulletin must be read completely before using.

The bond breaker, LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG helps prevent the imprinting tools from sticking to the fresh concrete and marring its fragile surface. For an antiqued effect, LITHOCHROME Antiquing Release in a different color than that of the colored surface should be chosen. After the antiquing release is applied, a portion of the colored material becomes embedded in the surface where it is trapped by the hardening concrete. When the surface is subsequently washed and sealed, an attractive, variegated, mottled, and antiqued appearance is obtained with colors ranging from that of the underlying concrete to that of the antiquing release, with mixtures of the two the most likely. If a more monochromatic color effect is desired, a color matching that of the colored surface should be used. When an antiqued appearance is not desired, colorless LITHOTEX Liquid Release or SCOFIELD Liquid Release SG is used to provide easy release of the tool and reduce surface marring. Scofield's Tech-Data Bulletin A-854 LITHOCHROME Antiquing Release, T-604 LITHOTEX Liquid Release, or T-614 SCOFIELD Liquid Release SG must be read completely before using.

**11. Preparation:**

Prior to placing concrete, representative jobsite samples must be produced as described in section 8. *Jobsite Samples*. Surrounding areas and adjacent surfaces should be protected, work areas roped off and appropriate sections closed to traffic. For exterior hardscapes, landscaping should be protected, parked vehicles removed, and doors and windows closed in nearby buildings to prevent colored dust from entering. For interior floors, walls should be protected and adjacent areas sealed off to prevent colored dust or construction contaminants from entering other sections of the building.

Weather conditions should be considered when planning installations. Professional practices as described in ACI standards 305R *Hot Weather Concreting* and 306R *Cold Weather Concreting* should be followed. Since the release agent is either a very finely ground powder or a liquid, wind conditions will severely affect their application.



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Climatic conditions, experience in imprinted-concrete installation, and other factors will affect the size of the crew required. Smaller pours should be considered to allow adequate time for the imprinting procedure.

Reference points should be established and guidelines placed to serve as reference for pattern placement and to check alignment as installation proceeds. Walls are normally not used for aligning patterns. The pattern normally is started at the form line and is filled in at the wall by hand tooling with Pavecrafters filler tools or texturing tools. For most layouts, the corners of the forms must form exact right angles so that the pattern will not drift out-of-line as imprinting proceeds.

When adequate tools are available, installation becomes easier, faster, and more precise. Since imprinting normally proceeds in rows, a sufficient number of tools should be available to complete one row and begin placement of the next row before removing tools for reuse. Usually enough tools to form a row across the width of the installation plus two extra are supplied. The extras allow for replacements in case a tool is damaged during use.

Before the concrete is ordered, placing a trial layout over compacted, moist sand is recommended to reduce error. The position of each Pavecrafters tool should be marked by guidelines or by grease pencil on the forms for reference during imprinting.

**12. Imprinting:**

Construction techniques, materials, and timing to produce the desired effect should be determined from the jobsite sample as described in section 8. *Jobsite Samples*. Equipment and materials as described in section 10. *Equipment and Materials* should be available and guidelines should be set. Dust masks, safety goggles, and gloves must be worn during imprinting.

Timing is critical since imprinting must be completed before the concrete hardens. The concrete must be plastic enough so that a sharp imprint can be produced but hardened enough to retain it. As a guide to determining when concrete is at the correct state of hardening, a finger pushed into the surface should leave a slight indentation. If the indentation keeps its shape, it is an indication that the concrete is at the proper stage to be imprinted and imprinting should start and proceed without delay.

If LITHOCHROME Antiquing Release is to be used, clean Pavecrafters tools should be preconditioned prior to use by coating them thoroughly with the antiquing release in the color specified. Excess antiquing release should be removed by shaking the tool gently or lightly brushing with a soft-bristle brush. The Scofield Tech-Data Bulletin A-854 *LITHOCHROME Antiquing Release* must be read completely before using.

If LITHOTEX Liquid Release or SCOFIELD Liquid Release SG is to be used, it should be sprayed in a fine misting spray evenly over the surface of the clean imprinting tool and the concrete surface. The appropriate Scofield Tech-Data Bulletin T-604 *LITHOTEX Liquid Release* or T-614 *SCOFIELD Liquid Release SG* must be read completely before using.

Imprinting installation is normally done in rows across the width of the area to be imprinted. Immediately prior to placing LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools, a layer of LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG should be applied over the section of color-hardened surface that will be covered by the first row of tools.

To prevent adhesion during imprinting, a complete and adequate layer of antiquing release or liquid release should exist between the concrete and the Pavecrafters tool. When using LITHOCHROME Antiquing Release sufficient material should be applied so that the sheen disappears from the surface of the concrete, but since texture detail may be diminished, the application of an excessive amount should be avoided.

When using LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools, predetermined guidelines and reference marks on the forms must be followed. The first row of LITHOTEX Pavecrafters Professional Grade Imprinting Tools or border tools should be carefully positioned over the antiquing release or liquid release. Each successive Professional Grade Imprinting Tool or border tool should be placed tightly against the preceding tool, matching the alignment marks on the top of the tool and maintaining a straight pattern. After the first row is positioned, the concrete should be imprinted by applying pressure to the top of the tool. When the concrete is at optimum hardening for imprinting, a moderate amount of force is needed to form the imprint. Initially, stepping from one tool to the other should be sufficient to set the tools to the desired depth.

LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG should be applied along the length of the next row. The first tool in the row should be set before lifting a tool in the preceding row. Tools should be lifted in the same order as they were placed, aligning them in the following row with the two previously placed, adjacent tools. Preplaced guidelines and alignment marks on the top of the Pavecrafters tools should be used to maintain straight pattern rows. Imprinting should continue in the same manner for following rows. As the concrete hardens, greater force will be needed to achieve a uniform impression depth and tampers may be required.

Pavecrafters floppy and filler tools should be used to finish rows and fill in sections of the design where it is not convenient or possible to use rigid or border tools.

Regardless of which LITHOTEX Pavecrafters tools are used, the surface should be periodically inspected for damaged areas or areas where the imprinting depth requires correcting. Border tools or LITHOTEX Pavecrafters Professional Grade Imprinting Tools may be carefully replaced and the impression deepened by tamping, or floppy and filler tools may be used. Areas where the texture is torn or damaged should be repaired by use of Pavecrafters texturing tools. Hand chisels should be used, where needed, to deepen or create joint lines.

To prevent marring the texture of the pattern, tools should be periodically inspected and hardened concrete residue removed as described in section 13. *Tool Maintenance*.

**13. Tool Maintenance:**

LITHOCHROME Antiquing Release, LITHOTEX Liquid Release, or SCOFIELD Liquid Release SG will not harm LITHOTEX Pavecrafters Professional Grade Imprinting Tools. LITHOCHROME Antiquing Release residue may be allowed to remain on the surface after excess material is removed by shaking or brushing with a soft-bristle brush. LITHOTEX Liquid Release or SCOFIELD Liquid Release SG will evaporate completely off the surface of the tools.

Prior to storage or when required to prevent color contamination, Pavecrafters tools should be cleaned of concrete residue, antiquing release residue if the product was used, and other foreign matter by scrubbing with a medium-stiff, nylon-bristle brush, warm water, and a suitable, high-quality liquid detergent. After rinsing, tools should be allowed to dry completely before storing as described in section 7. *Storage and Work Life*.

**14. Availability:**

LITHOTEX Pavecrafters Professional Grade Imprinting Tools are marketed directly to the user from Scofield's Atlanta and Los Angeles warehouses as well as selected distributors nationwide. Not all textures and patterns are stocked. Contact Scofield's Customer Service Department for availability on patterns not in stock or to inquire about custom tools.





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Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance in architectural concrete. Scofield Systems address specialized requirements for interior, exterior and vertical uses with compatible systems of complementary products including coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

**15. Warranty Statement:**

Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR

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Solvent-based liquid release agents other than those produced by Scofield may cause LITHOTEX Pavecrafters Professional Grade Imprinting Tools to deteriorate over time and their use will void the warranty.



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**ACI 522.1-13**

**Specification for  
Pervious Concrete Pavement**

An ACI Standard

Reported by ACI Committee 522



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### Specification for Pervious Concrete Pavement

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## ACI 522.1-13

# Specification for Pervious Concrete Pavement

An ACI Standard

Reported by ACI Committee 522

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*This Specification covers materials, preparation, forming, placing, finishing, jointing, curing, and quality control of pervious concrete pavement. Provisions governing testing, evaluation, and acceptance of pervious concrete pavement are included.*

*This Reference Specification can be made applicable by citing it in the Project Specifications. The Architect/Engineer can supplement this reference specification, as needed, by specifying individual project requirements.*

**Keywords:** construction; curing; inspection; jointing; parking lots; testing.

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(mandatory portion follows)

ACI 522.1-13 supersedes ACI 522.1-08, became effective May 22, 2013, and was published June 2013.

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## PART 1—GENERAL

### 1.1—Scope

1.1.1 This Specification provides requirements for the construction of pervious concrete pavement.

1.1.2 If the requirements of this Specification conflict with the Contract Documents, the Contract Documents shall govern.

1.1.3 Values in this Specification are stated in inch-pound units. A companion Specification in SI units is also available.

1.1.4 Plus (+) tolerance increases the amount or dimension to which it applies, or raises a deviation from level. Minus (–) tolerance decreases the amount or dimension to which it applies, or lowers a deviation from level. Where only one signed tolerance is specified (+ or –), there is no specified tolerance in the opposing direction.

### 1.2—Definitions

**acceptable or accepted**—determined to be satisfactory by architect/engineer.

**acceptance**—acknowledgment by Architect/Engineer that submittal or completed Work is acceptable.

**Architect/Engineer**—the architect, engineer, architectural firm, or engineering firm developing contract documents or administering the work under contract documents, or both.

**Contract Documents**—a set of documents supplied by owner to bidders during bidding phase of a construction project. These documents include general requirements, contract forms, contract conditions, specifications, drawings, and addenda.

**Contractor**—the person, firm, or entity under contract for construction of the Work.

**construction joint**—the surface where two successive placements of concrete meet, across which it may be desirable to achieve bond.

**contraction joint**—formed, sawed, or tooled groove in a concrete structure to create a weakened plane to regulate the location of cracking.

**design void content**—the percentage of voids of a unit volume of pervious concrete based on the theoretical mixture proportions and design density and where the unit volume includes the volume of the solids and the voids.

**early-entry dry-cut saw**—a tool designed to produce joints in concrete commencing 1 to 4 hours after finishing.

**hardened density**—the dry density of pervious concrete as determined by Paragraphs 8.3 and 9.3 of ASTM C140-12.

**hydration-stabilizing admixtures**—set-retarding admixtures, conforming to ASTM C494/C494M Type B or D, that can predictably reduce the hydration rate of cement for applications requiring the management of time of setting of returned concrete, reducing the hydration rate of cement fines in water from concrete production, or for applications requiring extended delivery time of ready mixed concrete.

**isolation joint**—a normally vertical interface allowing relative movement without transferring sufficient tension, compression, or traction forces to negatively affect the performance of a pavement structure.

**Owner**—the corporation, association, partnership, individual, public body, or authority for whom the Work is constructed.

**panel**—a concrete element that is relatively thin with respect to other dimensions and is bordered by joints or edges.

**permitted**—accepted by or acceptable to Architect/Engineer, usually pertaining to a request by Contractor, or when specified in Contract Documents.

**pervious pavement**—a pavement comprising material with sufficient continuous voids to allow water to pass from the surface to the underlying layers.

**Project Drawings**—graphic presentation of project requirements.

**Project Specification**—written document that details requirements for the Work in accordance with service parameters and other specific criteria.

**referenced standards**—standardized mandatory-language documents of a technical society, organization, or association, including codes of local or state authorities, which are incorporated by reference in Contract Documents.

**subbase**—the layer in a pavement system between the subgrade and the base course, or between the subgrade and a pervious concrete pavement.

**submittal**—document or material provided to Architect/Engineer for review and acceptance.

**Work**—the entire construction or separately identifiable parts thereof required to be furnished under Contract Documents.

### 1.3—Referenced standards

1.3.1 Standards of ACI and ASTM cited in this Specification are listed by name and designation, including year.

1.3.1.1 *American Concrete Institute*

306.1-90—Standard Specification for Cold Weather Concrete

1.3.1.2 *ASTM International*

C42/C42M-13—Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete

C94/C94M-13—Standard Specification for Ready Mixed Concrete

C140-12—Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units

C150/C150M-12—Standard Specification for Portland Cement

C171-07—Standard Specification for Sheet Materials for Curing Concrete

C172/C172M-10—Standard Practice for Sampling Freshly Mixed Concrete

C174/C174M-12—Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores

C260/C260M-10—Standard Specification for Air-Entraining Admixtures for Concrete

C494/494M-12—Standard Specification for Chemical Admixtures for Concrete

C595/595M-13—Standard Specification for Blended Hydraulic Cements



C618-12—Standard Specification for Coal Fly Ash and Raw or Calced Natural Pozzolan for Use in Concrete  
 C979/C979M-10—Standard Specification for Pigments for Integrally Colored Concrete  
 C989/C989M-12a—Standard Specification for Slag Cement for Use in Concrete and Mortars  
 C1017/C1017M-07—Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete  
 C1077-13—Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation  
 C1116/C1116M-10—Standard Specification for Fiber-Reinforced Concrete  
 C1157/1157M-11—Standard Performance Specification for Hydraulic Cement  
 C1240-12—Standard Specification for Silica Fume Used in Cementitious Mixtures  
 C1688/C1688M-13—Standard Test Method for Density and Void Content of Freshly Mixed Pervious Concrete  
 D994/D994M-11—Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)  
 D1751-04(2008)—Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)  
 D1752-04(2008)—Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction  
 D3385-09—Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer  
 D3665-12—Standard Practice for Random Sampling of Construction Materials  
 E329-11—Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection

#### 1.4—Submittals

1.4.1 Submit drawings and documentation required in 1.4.1.1 through 1.4.1.8. Obtain written acceptance of submittals by Architect/Engineer before the execution of the related portion of Work.

1.4.1.1 Qualifications of Contractor as specified in 1.5.1.1.

1.4.1.2 Proposed concrete mixture proportions with density and void content of freshly mixed pervious concrete per ASTM C1688/C1688M.

1.4.1.2.1 In-place pavement test results from previous work, completed in the last 24 months, including density and void content of freshly mixed pervious concrete, mixture proportions, thickness, density and void content of cores extracted from the pavement, if tested, when required by Architect/Engineer.

1.4.1.3 Reports covering the source and quality of concrete materials.

1.4.1.4 Two test panels, as described in 1.5.2.2, shall be placed, jointed, and cured; each a minimum of 225 ft<sup>2</sup> and being within tolerance of the required thickness defined by Contract Documents. The required information to be submitted from the test panels shall be: density of the fresh concrete, length of cores, and density of cores.

1.4.1.5 Jointing plan and placing sequence, if proposed alternatively to the Contract Documents.

1.4.1.6 When hot weather is anticipated, submit detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete during hot weather.

1.4.1.7 In cold weather, submit detailed procedures for the production, transportation, placement, protection, curing, and temperature monitoring of concrete.

1.4.1.8 Qualifications of testing agency as specified in 1.5.1.2.

#### 1.5—Quality control

1.5.1 *General*—Test and inspect concrete materials and operations as Work progresses as described in 1.5.3. Failure to detect defective Work or material at any time will not prevent rejection if a defect is discovered later, nor shall it constitute final acceptance.

1.5.1.1 *Contractor*—Employ no less than one National Ready Mixed Concrete Association (NRMCA) certified Pervious Concrete Craftsman who must be on site, overseeing each placement crew during all concrete placement, or employ no less than three NRMCA Certified Pervious Concrete Installers, who must be on site working as members of each placement crew during all concrete placement, unless otherwise specified. The minimum number of certified individuals must be present on each pervious concrete placement, including the test panel placements, and a certified individual must be in charge of the placement crew and procedures.

1.5.1.2 *Testing agencies*—Agencies that perform testing services on concrete materials shall meet the requirements of ASTM C1077. Agencies inspecting the Work shall meet the requirements of ASTM E329. Testing agencies performing the testing shall be accepted by Architect/Engineer before performing any Work.

1.5.1.3 *Field technicians*—Field tests of concrete required in 1.5.3 shall be performed by an individual certified as both an NRMCA Certified Pervious Concrete Technician, or equivalent, and an ACI Concrete Field Testing Technician—Grade I, or equivalent.

##### 1.5.2 Responsibilities of Contractor

1.5.2.1 Advise Owner's testing agency at least 48 hours before concrete placement.

1.5.2.2 *Test panels*—Place two test panels on the project site, on a subgrade and subbase prepared as specified, using the material and construction requirements for pavement in this Specification. Each panel must have an area of at least 225 ft<sup>2</sup>, and a width and thickness as specified for the pavement in the Contract Documents.

##### 1.5.3 Responsibilities of testing agency

1.5.3.1 Complete at least one density test on a sample of freshly mixed pervious concrete for each day of concrete placement and for each test panel in accordance with ASTM C1688/C1688M. Sample freshly mixed concrete in accordance with ASTM C172/C172M. Size of sample shall be at least 1 ft<sup>3</sup>.

1.5.3.2 Remove three cores from each lot of 5000 ft<sup>2</sup> and each test panel in accordance with ASTM C42/C42M, not less than 7 days after placement of the pervious concrete.

1.5.3.2.a Cores shall be a nominal 4 in. diameter.

1.5.3.2.b Select three core locations in accordance with ASTM D3665.

1.5.3.2.c Measure the core length in accordance ASTM C174/C174M.

1.5.3.2.d After thickness determination, trim the cores and measure the hardened density of the core in accordance with Paragraphs 8.3 and 9.3 of ASTM C140. Trim core bottoms to remove only the material necessary to produce a flat end. Trimmed core ends shall be perpendicular to the longitudinal axis and meet the requirements of ASTM C42/C42M, 7.4.1 and 7.4.2.

1.5.3.3 Record the length and density of each individual core and the average length and density of the three cores. Test results will be submitted to the Contractor, concrete producer, and Architect/Engineer within 24 hours of completing the tests.

1.5.3.4 Core holes shall be filled with conventional concrete or preblended grout.

#### 1.5.4 Acceptance of test panels

1.5.4.1 The fresh density from a test panel shall be within  $\pm 5$  lb/ft<sup>3</sup> of the accepted fresh density from the submitted mixture proportion in 1.4.1.2.

1.5.4.2 Tolerances from specified thickness of pavement shall comply with 1.5.4.2.a and 1.5.4.2.b.

1.5.4.2.a Average length of three cores ... -3/8 in., +1.5 in.

1.5.4.2.b Length of an individual core ..... -3/4 in.

1.5.4.3 If the test panel does not comply with 1.5.4.1 and 1.5.4.2, the test panel shall be rejected, removed, and replaced at Contractor's expense, unless otherwise permitted.

1.5.4.4 If the test panel complies with 1.5.4.1 and 1.5.4.2 and the Architect/Engineer accepts the test panel, the panel may be left in place and included in the completed Work. The average hardened densities from the two accepted test panels shall be the hardened density used as the basis of acceptance for the remainder of the pavement in accordance with 1.5.5.3.

#### 1.5.5 Acceptance of pavement

1.5.5.1 The fresh density from a lot must be within  $\pm 5$  lb/ft<sup>3</sup> of the accepted fresh density from the submitted mixture proportion in 1.4.1.2.

1.5.5.2 Tolerance from specified thickness of pavement is listed in 1.5.5.2.a and 1.5.5.2.b.

1.5.5.2.a Average length of three cores ... -3/8 in., +1.5 in.

1.5.5.2.b Length of an individual core ..... -3/4 in.

1.5.5.3 The average hardened density from a lot must be within  $\pm 5$  percent of the accepted hardened density in 1.5.4.4.

1.5.5.4 When a lot is outside one or more of the limits of 1.5.5.1 through 1.5.5.3, the lot shall be subject to rejection, removal, and replacement at Contractor's expense, unless accepted by Owner.

## PART 2—PRODUCTS

### 2.1—Subbase

Coarse aggregates shall meet the size, quality, and grading requirements of Contract Documents.

### 2.2—Pervious concrete

Comply with ASTM C94/C94M (except sections: 4.2, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 7, 8, 16, 17, 18, 19, and 20) and the requirements listed in 2.2.1 through 2.2.7. The volume of fresh concrete in a given batch shall be determined from the total mass of the batch divided by the design density of the concrete. The total mass of the batch shall be determined as the net mass of the concrete in the batch as delivered, including the total mixing water as defined in ASTM C94/C94M Paragraph 9.3.

2.2.1 *Thickness*—The thickness of pervious concrete pavement shall be as specified in contract documents.

2.2.2 *Aggregates*—Nominal maximum aggregate size shall not exceed 1 in., unless otherwise specified.

2.2.3 *Cement*—Cement shall comply with ASTM C150/C150M, C595/C595M, or C1157/C1157M.

2.2.4 *Admixtures*—Chemical admixtures shall comply with ASTM C260/C260M, ASTM C494/C494M, or ASTM C1017/C1017M unless otherwise specified.

2.2.5 *Fibers*—Fibers shall comply with ASTM C1116/C1116M, 4.1.3 or 4.1.4. Fibers may be used in pervious concrete mixtures when permitted by the Architect/Engineer.

2.2.6 *Pigments*—Pigments shall comply with ASTM C979/C979M.

2.2.7 *Supplementary cementitious materials*—Supplementary Cementitious Materials shall comply with ASTM C618, C989/C989M, or C1240.

### 2.3—Isolation joint material

2.3.1 Isolation joint materials shall comply with ASTM D994/D994M, D1751, or D1752.

### 2.4—Forms

2.4.1 Make forms with steel, wood, or other materials that are sufficiently rigid to maintain specified tolerances and capable of supporting concrete and mechanical concrete placing equipment.

2.4.2 Use forms clean and free of debris, non-adherent rust, and hardened concrete.

### 2.5—Polyethylene curing sheet

2.5.1 Polyethylene curing sheet shall comply with ASTM C171.

## PART 3—EXECUTION

### 3.1—Subgrade preparation

3.1.1 Prepare subgrade as specified in Contract Documents.

3.1.2 Construct subgrade to  $\pm 3/4$  in. of the specified elevation.

3.1.3 Provide physical barriers or direct traffic to minimize vehicular traffic on the subgrade during construction.

Regrade and recompact subgrade disturbed by construction traffic, as needed.

3.1.4 Protect all specified trees, vegetation, and root systems near the area to be paved with pervious concrete. If trees, vegetation, or root systems are damaged, Contractor shall replace materials.

3.1.5 Determine subgrade permeability in accordance with ASTM D3385 before subbase or concrete placement. If the subgrade permeability is less than specified, proceed as indicated in Contract Documents.

### 3.2—Subbase

3.2.1 Prepare subbase, where specified, in accordance with Contract Documents.

3.2.2 Construct subbase to  $\pm 3/4$  in. of the specified elevation.

3.2.3 Provide physical barriers or direct traffic to minimize vehicular traffic on the subbase during construction. Regrade and recompact subbase disturbed by construction traffic, as needed.

### 3.3—Setting formwork

3.3.1 Set, align, and brace forms so that the hardened pavement meets the tolerances specified in 3.9.

3.3.2 Apply form-release agent to the form face, which will be in contact with concrete, immediately before placing concrete.

3.3.3 The vertical face of previously placed concrete may be used as a form.

3.3.3.1 Protect previously placed pavement from damage.

3.3.3.2 Do not apply form release agent to previously placed concrete.

### 3.4—Batching, mixing, and delivery

3.4.1 Begin mixing immediately after cement has been added to aggregates. Batch and mix in compliance with ASTM C94/C94M, except that discharge shall be completed within 60 minutes of the introduction of mixture water or aggregate to the cement. Increase time to 120 minutes when using a hydration-stabilizing admixture. Additional water may be added on site, but the fresh density must still meet requirements of 1.5.5.1 after water addition.

### 3.5—Placing and finishing fixed-form pavement

3.5.1 Wet the subgrade or subbase with water before concrete placement such that the material is saturated but without any standing water on the prepared subbase immediately before concrete placement.

3.5.2 Deposit concrete either directly from the transporting equipment or by conveyor onto the subgrade or subbase, unless otherwise specified.

3.5.3 Do not place concrete on frozen subgrade or subbase.

3.5.4 Deposit concrete between the forms to an approximately uniform height.

3.5.5 Spread the concrete using mechanized equipment or hand tools, without segregation.

3.5.6 Strike off concrete between forms using a form-riding paving machine, roller screed, or vibrating screed.

Other strike-off devices may be used when accepted by Architect/Engineer.

3.5.7 Finish the pavement to the elevations and thickness specified in accordance with 3.9.

### 3.6—Placing and finishing slipform pavement

3.6.1 Slipform equipment is permitted.

3.6.2 Deposit concrete in accordance with 3.5.1, 3.5.2, and 3.5.3.

### 3.7—Final surface texture

3.7.1 Compact concrete to a dense, open-textured surface to match the appearance of the test panel.

### 3.8—Edging

3.8.1 Edge top surface to a radius of not less than 1/4 in.

### 3.9—Tolerances

3.9.1 Construct pavement to comply with the tolerances in 3.9.1.1 through 3.9.1.3:

3.9.1.1 Elevation:  $+3/4$  in.,  $-3/4$  in.

3.9.1.2 Thickness:  $+1-1/2$  in.,  $-3/8$  in.

3.9.1.3 Contraction joint depth: 1/4 thickness of pavement  $+1/4$  in.,  $-1/4$  in.

3.9.1.4 Smoothness: Similar to approved test panel with no abrupt offsets unless required by the contract drawings.

3.9.2 Mechanically sweep or vacuum pavement with clean equipment, or flush with water, before testing for compliance with tolerances.

### 3.10—Curing

3.10.1 Begin curing within 20 minutes of concrete discharge, unless otherwise specified or permitted.

3.10.2 Completely cover the pavement surface and all exposed edges with a polyethylene sheet, unless otherwise permitted.

3.10.3 Thoroughly secure a polyethylene sheet at all exterior edges and interior laps without using soil. The method of securing the cover material shall prevent wind from removing the sheet and from blowing under the sheet across the surface of the concrete.

3.10.4 Cure pavement for a minimum of 7 uninterrupted days, unless otherwise specified.

### 3.11—Cold-weather construction

3.11.1 Protect concrete from freezing and record concrete temperature no less than twice per 24-hour period in accordance with ACI 306.1.

### 3.12—Jointing

3.12.1 Construct joints at the locations, depths, and with horizontal dimensions indicated in Contract Documents, unless otherwise specified.

3.12.2 Create contraction joints by one of the methods listed in 3.12.2.1 or 3.12.2.2.

3.12.2.1 Tool contraction joints to the specified depth and width in fresh concrete immediately after the concrete is compacted.

3.12.2.2 Sawcut concrete after concrete has hardened sufficiently to prevent aggregate from being dislodged and soon enough to control pavement cracking. To minimize drying, ensure that curing materials are removed only as needed to make cuts.

### 3.13—Opening to traffic

3.13.1 Do not open the pavement to vehicular traffic until the concrete has cured for at least 7 uninterrupted days during which the ambient temperature has exceeded 55°F during any time of the day.

*(Nonmandatory portion follows)*

## NOTES TO SPECIFIER

### General Notes

G1. ACI Specification 522.1 is to be used by reference or incorporation in its entirety in the Project Specification. Do not copy individual parts, sections, articles, or paragraphs into the project specification, because taking them out of context may change their meaning.

G2. If sections or parts of ACI Specification 522.1 are copied into the Project Specification or any other document, do not refer to them as an ACI specification, because the specification has been altered.

G3. A statement such as the following will serve to make ACI Specification 522.1 a part of the Project Specification:

"Work on (Project Title) shall conform to all requirements of ACI 522.1, 'Specification for Pervious Concrete Pavement,' published by the American Concrete Institute, Farmington Hills, Michigan, except as modified by these Contract Documents."

G4. Each technical section of ACI Specification 522.1 is written in the three-part section format of the Construction

Specifications Institute, as adapted for ACI requirements. The language is imperative and terse.

G5. If ACI Specification 522.1 is used with another ACI Specification that contains overlapping provisions, identify which requirements are in conflict and state in the contract documents which requirements control.

## FOREWORD TO CHECKLISTS

F1. This Foreword is included for explanatory purposes only; it does not form a part of Specification ACI 522.1.

F2. ACI Specification 522.1 may be referenced by the Specifier in the Project Specification for any building project, together with supplementary requirements for the specific project. Responsibilities for project participants must be defined in the Project Specification. ACI Specification 522.1 cannot and does not address responsibilities for any project participant other than the Contractor.

F3. Checklists do not form a part of ACI Specification 522.1. Checklists assist the Specifier in selecting and specifying project requirements in the project specification.

F4. The Mandatory Requirements Checklist indicates work requirements regarding specific qualities, procedures, materials, and performance criteria that are not defined in ACI Specification 522.1. The Specifier must include these requirements in the Project Specification.

F5. *Recommended references*—Documents and publications that are referenced in the checklists of ACI Specification 522.1 are listed below. These references provide guidance to the Specifier and are not considered to be part of ACI Specification 522.1.

### American Concrete Institute

ACI 305R—Guide to Hot Weather Concreting

ACI 306R—Guide to Cold Weather Concreting

SPECIFICATION FOR PERVIOUS CONCRETE PAVEMENT (ACI 522.1-13)

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MANDATORY REQUIREMENTS CHECKLIST

Section/Part/Article	Notes to Specifier
2.1	Specify coarse aggregate size, quality, and grading requirements.
2.2.1	Specify pavement thickness.
3.1.1	Specify subgrade preparation and permeability requirements in appropriate section of Contract Documents.
3.1.4	Identify trees, vegetation, and root systems to protect near the area to be paved with pervious concrete.
3.5.7	Specify final surface profile, elevations, and pavement thicknesses in Contract Documents.
3.12.1	Specify joint locations, depths, and dimensions on Project Drawings.

SUBMITTALS CHECKLIST

Section/Part/Article	Submittal items and Notes to Specifier
<i>General requirements</i>	
1.4.1.2	Review and accept mixture proportions.
1.4.1.2.1	Review and accept in-place pavement test results from previous work.
1.4.1.3	Review and accept concrete raw materials.
1.4.1.4	Review and accept test panels.
1.4.1.5	Review and accept jointing plan and placing sequence.
1.4.1.8	Review and accept qualifications of testing agency.
<i>Contractor qualification</i>	
1.5.1.1	Review and accept NRMCA certification documents from Contractor or qualifications alternative to NRMCA certification documenting proficiency and experience in constructing pervious concrete pavements.
<i>Batching, mixing, and delivery</i>	
3.4.1	When required, verify that the use of hydration stabilizing admixture extends the delivery time of the concrete to 120 minutes: either through documented project experience with the admixture at the proposed dosage rate and concrete temperature, or in conjunction with the test panel placement, by placing an additional panel, without adding additional water to the load, at 110 minutes after batching.
<i>Hot- and cold-weather construction</i>	
1.4.1.6	When required, verify execution plan from Contractor where applicable. Refer to ACI 305R.
1.4.1.7	When required, verify execution plan from Contractor where applicable. Refer to ACI 306R.
<i>Jointing</i>	
1.4.1.5	<p>Review and accept drawings from Contractor describing joint requirements and spacing.</p> <p>Contractor's jointing plan should follow the general guidelines:</p> <p>Spacing between contraction joints shall not exceed 20 ft.</p> <p>The larger horizontal dimension of a slab panel shall not exceed 125 percent of the smaller horizontal dimension.</p> <p>The angle between two intersecting joints shall be between 80 and 100 degrees, unless otherwise specified.</p> <p>Joints shall intersect pavement exterior edges at 90-degree angles and shall extend straight for a minimum of 1-1/2 ft from the pavement edge where possible.</p> <p>Align joints of adjacent pavement panels.</p> <p>Contraction joint depth shall be 1/4 to 1/3 of the pavement thickness. Minimum joint width for sawcutting is 1/8 in.</p> <p>Use isolation joints where pavement abuts fixed objects, such as buildings, foundations, and manholes.</p> <p>Extend isolation joints through the full depth of the pavement. Fill the entire isolation joint with isolation joint material.</p>





As ACI begins its second century of advancing concrete knowledge, its original chartered purpose remains "to provide a comradeship in finding the best ways to do concrete work of all kinds and in spreading knowledge." In keeping with this purpose, ACI supports the following activities:

- Technical committees that produce consensus reports, guides, specifications, and codes.
- Spring and fall conventions to facilitate the work of its committees.
- Educational seminars that disseminate reliable information on concrete.
- Certification programs for personnel employed within the concrete industry.
- Student programs such as scholarships, internships, and competitions.
- Sponsoring and co-sponsoring international conferences and symposia.
- Formal coordination with several international concrete related societies.
- Periodicals: the ACI Structural Journal and the ACI Materials Journal, and Concrete International.

Benefits of membership include a subscription to Concrete International and to an ACI Journal. ACI members receive discounts of up to 40% on all ACI products and services, including documents, seminars and convention registration fees.

As a member of ACI, you join thousands of practitioners and professionals worldwide who share a commitment to maintain the highest industry standards for concrete technology, construction, and practices. In addition, ACI chapters provide opportunities for interaction of professionals and practitioners at a local level.

**American Concrete Institute**  
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**U.S.A.**  
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**[www.concrete.org](http://www.concrete.org)**

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## Specification for Pervious Concrete Pavement

### The AMERICAN CONCRETE INSTITUTE

was founded in 1904 as a nonprofit membership organization dedicated to public service and representing the user interest in the field of concrete. ACI gathers and distributes information on the improvement of design, construction and maintenance of concrete products and structures. The work of ACI is conducted by individual ACI members and through volunteer committees composed of both members and non-members.

The committees, as well as ACI as a whole, operate under a consensus format, which assures all participants the right to have their views considered. Committee activities include the development of building codes and specifications; analysis of research and development results; presentation of construction and repair techniques; and education.

Individuals interested in the activities of ACI are encouraged to become a member. There are no educational or employment requirements. ACI's membership is composed of engineers, architects, scientists, contractors, educators, and representatives from a variety of companies and organizations.

Members are encouraged to participate in committee activities that relate to their specific areas of interest. For more information, contact ACI.

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*Advancing concrete knowledge*

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## **CORPORATE RESOLUTION**

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF

---

INCORPORATED.

AT THE MEETING OF DIRECTORS OF \_\_\_\_\_  
INCORPORATED, DULY NOTICED AND HELD ON \_\_\_\_\_,  
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT  
WAS:

RESOLVED. THAT \_\_\_\_\_, BE AND IS HEREBY  
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-  
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON  
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS  
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,  
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE  
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,  
CONTRACTS AND ACTS AND TO RECEIVE AND RECEIPT THEREFOR ALL  
PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF  
ANY SUCH BID OR CONTRACT, THIS CORPORATION HEREBY RATIFYING,  
APPROVING, CONFIRMING, AND ACCEPTING EACH AND EVERY SUCH ACT  
PERFORMED BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE  
A TRUE AND CORRECT COPY OF AN  
EXCERPT OF THE MINUTES OF THE  
ABOVE DATED MEETING OF THE BOARD  
OF DIRECTORS OF SAID CORPORATION,  
AND THE SAME HAS NOT BEEN  
REVOKED OR RESCINDED.

---

**SECRETARY-TREASURER**

---

**DATE**

## **Public Works Bid Affidavit Instructions**

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

*Instruction sheet may be omitted when submitting the affidavit*

**Public Works Bid**

**AFFIDAVIT**

**STATE OF** \_\_\_\_\_

**PARISH/COUNTY OF** \_\_\_\_\_

BEFORE ME, the undersigned authority, personally came and appeared: \_\_\_\_\_  
\_\_\_\_\_, (Affiant) who after being by me duly sworn, deposed and said that  
he/she is the fully authorized \_\_\_\_\_ of \_\_\_\_\_ (Entity),  
the party who submitted a bid in response to Bid Number \_\_\_\_\_, to the Parish of  
Jefferson.

Affiant further said:

Campaign Contribution Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

**Choice A** \_\_\_\_\_ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

**Choice B** \_\_\_\_\_ there are **NO** campaign contributions made which would require disclosure under Choice A of this section.



Affiant further said:

Debt Disclosures

**(Choose A or B, if option A is indicated please include the required attachment):**

**Choice A** \_\_\_\_\_ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the parish to the Affiant.

**Choice B** \_\_\_\_\_ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Affiant further said:

Affiant personally has not been convicted of, nor has he/she entered into a plea of guilty or nolo contendere to any of the crimes or equivalent federal crimes listed below. No individual partner, incorporator, director, manager, officer, organizer, or member, who has a minimum of a ten percent ownership in the Bidding Entity, has been convicted of, or has entered a plea of guilty or nolo contendere to any of the crimes or equivalent federal crimes listed below. A conviction of or plea of guilty or nolo contendere to the following state crimes or equivalent federal crimes shall permanently bar any person or the bidding entity from bidding on public projects:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

A conviction of or plea of guilty or nolo contendere to the following state crimes or equivalent federal crimes shall bar any person or the bidding entity from bidding on public projects for a period of five years from the date of conviction or from the date of the entrance of the plea of guilty or nolo contendere:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67, 16)
- (c) Theft of a business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Issuing worthless checks (R.S. 14:71)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14:134)

The five-year prohibition provided for in this section shall apply only if the crime was committed during the solicitation or execution of a contract or bid awarded pursuant to these provisions. If evidence is submitted substantiating that a false attestation has been made and the project must be readvertised or the contract cancelled, the awarded entity making the false attestation shall be responsible to the public entity for the costs of rebidding, additional costs due to increased costs of bids and any and all delay costs due to the rebid or cancellation of this project.

*[The remainder of this page is intentionally left blank.]*

Affiant further said:

- (1) Entity is registered and participates in a status verification system to verify that all employees in the State of Louisiana are legal citizens of the United States or are legal aliens.
- (2) Entity shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the State of Louisiana.
- (3) Entity shall require all subcontractors to submit to the Entity a sworn affidavit verifying compliance with statements (1) and (2).

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Printed Name of Notary

\_\_\_\_\_  
Notary/Bar Roll Number

My commission expires \_\_\_\_\_.

DATE: 8/25/2021

INVITATION TO BID  
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00135605

**JEFFERSON PARISH**

PURCHASING DEPARTMENT  
P.O. BOX 9  
GRETNA, LA. 70054-0009  
504-364-2678

BUYER: DNELSON@jeffparish.net

BIDS WILL BE RECEIVED ONLINE VIA [WWW.JEFFPARISHBIDS.NET](http://WWW.JEFFPARISHBIDS.NET) UNTIL 2:00 PM, 9/23/2021 AND PUBLICLY OPENED THEREAFTER IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053. At no charge, bidders are to submit via Jefferson Parish's electronic procurement page by visiting [www.jeffparishbids.net](http://www.jeffparishbids.net) to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

**LATE BIDS WILL NOT BE ACCEPTED**

**NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION. HOWEVER, ELECTRONIC SIGNATURES AS DEFINED IN LSA - R.S. 9:2620(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.**

**INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

**THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS**

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

**Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)**

**DATE: 8/25/2021**

**BID NO.: 50-00135605**

**Page: 2**

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

### **INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS**

**A. AWARD OF CONTRACT:** JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE AND RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

**PROTESTS:** Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

**PREFERENCE:** Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

**B. USE OF BRAND NAMES AND STOCK NUMBERS:** Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

**C. CANCELLATION OF CONTRACT:** JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

**D. PRICES:** Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. For purchases of labor and materials, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owned on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).



DATE: 8/25/2021

BID NO.: 50-00135605

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## INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

### IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online.

This is a secure site and authorized personnel have limited read access only. Bidders are to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at [www.jeffparishbids.net](http://www.jeffparishbids.net) to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 as amended. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

### ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

**2, 3, 4, 6, 7, 10, 11, 12, 13, 14, 17**

**PRE-BID CONFERENCE TO BE HELD AT: J.P. PURCHASING DEPT., 200 DERBIGNY ST.,  
STE. 4400, GRETNA, LA 70053 AT 10:00 AM  
ON 9/13/2021**

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(I), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.

## INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid electronic envelope. Failure to comply will cause the bid to be rejected. When submitting the bid electronically, the license number must be entered in the appropriate field in the electronic procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precaution must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Failure to comply with this instruction will result in bid rejection.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. All sureties must be in original format (no copies) When submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

## INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA – RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment."). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to JPCO 2-155.10(19). By signing this document, every corporation, partnership, or person contracting with PARISH, whether by cooperative endeavor, intergovernmental agreement, bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program, attests that it understands and will abide by all provisions of JPCO 2-155.10.

## LOUISIANA UNIFORM PUBLIC WORK BID FORM

50-00135605

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TO: JEFFERSON PARISH  
PURCHASING DEPT  
200 DERBIGNY ST. SUITE 4400  
GRETN, LA 70053  
 (Owner to provide name and address of owner)

BID FOR: **RESTORATION OF SIDEWALKS DRIVEWAY  
 APRONS & OCCASIONALLY THE  
 ADJACENT STREET PANEL FOR  
 THE J.P. DEPT. OF STREETS**  
 (Owner to provide name of project and  
 other identifying information)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents, prepared by: Jefferson Parish Department of Public Works, Streets

and dated: August 25, 2021

(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_

**TOTAL BASE BID:** For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:

\_\_\_\_\_ Dollars (\$ ) \_\_\_\_\_

**ALTERNATES:** For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

**Alternate No. 1** (Owner to provide description of alternate and state whether add or deduct) for the lump sum, of:

N/A \_\_\_\_\_ Dollars (\$ ) \_\_\_\_\_

**Alternate No. 2** (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A \_\_\_\_\_ Dollars (\$ ) \_\_\_\_\_

**Alternate No. 3** (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A \_\_\_\_\_ Dollars (\$ ) \_\_\_\_\_

**NAME OF BIDDER:** \_\_\_\_\_

**ADDRESS OF BIDDER:** \_\_\_\_\_

**LOUISIANA CONTRACTOR'S LICENSE NUMBER:** \_\_\_\_\_

**NAME OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**TITLE OF AUTHORIZED SIGNATORY OF BIDDER:** \_\_\_\_\_

**SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER \*\*:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA  
 UNIFORM PUBLIC WORK BID FORM:**

\* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

\*\* A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA-R.S. 38:2218 (B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA-R.S. 38:2218.(A) is attached to and made a part of this bid.

LOUISIANA UNIFORM PUBLIC WORK BID FORM  
UNIT PRICE FORM

Bid# 50-00135605

TO: JEFFERSON PARISH  
PURCHASING DEPT  
200 DERBIGNY ST. SUITE 4400  
GRETN, LA 70053  
(Owner to provide name and  
address of owner)

**RESTORATION OF SIDEWALKS, DRIVEWAY  
APRONS AND OCCASIONALLY THE ADJACENT  
STREET PANEL, FOR THE JEFFERSON PARISH  
DEPARTMENT OF STREETS**

(Owner to provide name of project  
and other identifying information)

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices.  
Amounts shall be stated in figures and only in figures.

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0010 SIDEWALK CONSTRUCTION PCC 4 INCH THICK, HIGH EARLY STRENGTH 4000 PSI 72 HOURS, IN-PLACE FOR SIDEWALKS
REF NO.	QUANTITY	UNIT OF MEASURE
0010	1,800.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0015 SIDEWALK CONSTRUCTION PCC 5 INCH THICK, HIGH EARLY STRENGTH 4000 PSI 72 HOURS, IN-PLACE FOR DRIVEWAY APRON
REF NO.	QUANTITY	UNIT OF MEASURE
0015	10.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0020 DRIVEWAY CONSTRUCTION PCC 6 INCH THICK, HIGH EARLY STRENGTH 4000 PSI - 72 HOURS, IN-PLACE FOR DRIVEWAY APRONS
REF NO.	QUANTITY	UNIT OF MEASURE
0020	300.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0030 SIDEWALK CONSTRUCTION PCC 6 INCH THICK, HIGH EARLY STRENGTH 4000 PSI - 72 HOURS, IN-PLACE FOR HANDICAP RAMPS WITH 6X6-W2.9 STEEL MESH REINFORCEMENT
REF NO.	QUANTITY	UNIT OF MEASURE
0030	2,000.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0040 SIDEWALK CONSTRUCTION PCC 8 INCH THICK, HIGH EARLY STRENGTH 4000 PSI - 72 HOURS, IN PLACE FOR HANDICAP RAMPS WITH 6X6-W2.9 STEEL MESH REINFORCEMENT
REF NO.	QUANTITY	UNIT OF MEASURE
0040	100.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0050 7 INCH THICK PAVEMENT (PCC) HIGH EARLY STRENGTH 4000 PSI - 72 HOURS, IN-PLACE FOR CONCRETE FOR STREET PANELS
REF NO.	QUANTITY	UNIT OF MEASURE
0050	3,000.00	SQYD

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0055 CURBING (VARIOUS SIZES) PCC CURBING HIGH EARLY STRENGTH, 4000 PSI - 72 HOUR IN-PLACE CURBING SIZE MAY VARY (MAX HEIGHT = 8 INCH, MAX WIDTH - 15 INCH)
REF NO.	QUANTITY	UNIT OF MEASURE
0055	5,500.00	LF

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt. #__	0060 STEEL MESH, REINFORCING 6 X 6 - W2.9 STEEL MESH REINFORCEMENT FOR CONCRETE PAVEMENT (DRIVEWAY APRONS AND SIDEWALKS) AS NEEDED
REF NO.	QUANTITY	UNIT OF MEASURE
0060	150.00	SQYD

Wording for "DESCRIPTION" is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.



LOUISIANA UNIFORM PUBLIC WORK BID FORM  
UNIT PRICE FORM

Bid# 50-00135605

TO: JEFFERSON PARISH  
PURCHASING DEPT  
200 DERBIGNY ST. SUITE 4400  
GRETN, LA 70053  
(Owner to provide name and  
address of owner)

**RESTORATION OF SIDEWALKS, DRIVEWAY  
APRONS AND OCCASIONALLY THE ADJACENT  
STREET PANEL, FOR THE JEFFERSON PARISH  
DEPARTMENT OF STREETS**

(Owner to provide name of project  
and other identifying information)

**UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices.  
Amounts shall be stated in figures and only in figures.

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0065 24 INCH X 48 INCH DETECTABLE WARNING (TRUNCATED DOME) PAD		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0065	50.00	EA		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0070 TILE, DECORATIVE WASHED GRAVEL (PAVEMENT SURFACE)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0070	200.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0080 TILE, DECORATIVE SLATE (PAVEMENT SURFACE)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0080	20.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0090 TILE, DECORATIVE STONE PAVERS (PAVEMENT SURFACE)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0090	20.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0100 TILE, DECORATIVE BRICK PAVERS (PAVEMENT SURFACE)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0100	20.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0110 TILE, DECORATIVE STAMPED CONCRETE (PAVEMENT SURFACE)		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0110	25.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0120 SODING GRASS SODDING, IN-KIND AND IN-PLACE		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0120	2,500.00	SQYD		

<b>DESCRIPTION:</b>	<input checked="" type="checkbox"/> Base Bid <input type="checkbox"/> Alt.#__	0130 STAMPED CONCRETE/SIDEWALK CONSTRUCTION FOR FAT CITY AREA OR APPROVED EQUAL ***PER SUBMITTED SPECIFICATIONS**		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0130	10.00	SQYD		

Wording for "DESCRIPTION" is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.



LOUISIANA UNIFORM PUBLIC WORK BID FORM  
UNIT PRICE FORM

Bid# 50-00135605

TO: JEFFERSON PARISH  
PURCHASING DEPT  
200 DERBIGNY ST. SUITE 4400  
GRETNA, LA 70053  
(Owner to provide name and  
address of owner)

**RESTORATION OF SIDEWALKS, DRIVEWAY  
APRONS AND OCCASIONALLY THE ADJACENT  
STREET PANEL, FOR THE JEFFERSON PARISH  
DEPARTMENT OF STREETS**

(Owner to provide name of project  
and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices.  
Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid	0133 PERVIOUS CONCRETE WALKS & DRIVES OR APPROVED EQUAL		
	<input type="checkbox"/> Alt.#	***PER SUBMITTED SPECIFICATIONS**		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0133	100.00	SQYD		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid	0135 FLEXIBLE POROUS PAVEMENT KBI FLEX- PAVE HD2000 OR APPROVED EQUAL		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0135	50.00	SQYD		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid	0140 STRUCTURAL GRADE ADJUSTMENTS (ELEV. +/-6 INCH) TO EXISTING CATCH		
	<input type="checkbox"/> Alt.#	BASIN/DRAIN INLETS/MANHOLES		
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
0140	45.00	EA		

DESCRIPTION:	<input type="checkbox"/> Base Bid	NOT USED		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	<input type="checkbox"/> Base Bid	NOT USED		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	<input type="checkbox"/> Base Bid	NOT USED		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	<input type="checkbox"/> Base Bid	NOT USED		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

DESCRIPTION:	<input type="checkbox"/> Base Bid	NOT USED		
	<input type="checkbox"/> Alt.#			
REF NO.	QUANTITY	UNIT OF MEASURE	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)

Wording for "DESCRIPTION" is to be provided by the Owner.  
All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.